JPRS 84770

17 November 1983

China Report

AGRICULTURE

No. 279

FBIS FOREIGN BROADCAST INFORMATION SERVICE

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS 84770

17 November 1983

CHINA REPORT

AGRICULTURE

No. 279

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

NATIONAL

SHANXI

ZHEJIANG

BUMPER HARVEST OF SUMMER GRAIN CROPS REPORTED

Beijing ZHONGGUO NONGMIN BAO in Chinese 16 Jun 83 p 1

[Article: "Good News Keeps Pouring In of Bumper Harvests in Our Country's Major Wheat-Producing Areas"]

[Text] On the Huang Huai-Hai Plain, our country's major winter-wheat producing area, a bumper harvest of summer grain crops was obtained this year, and it is estimated that the total output will show a fairly big increase over that of last year.

Henan is the province in our country with the biggest area and biggest total output of winter wheat. Harvesting of wheat on the province's over 70 million my of wheat has now been basically completed, and the total output has reached 28.2 billion jin, an increase of 3.24 billion jin over that of the big harvest last year, setting a new historical record. In the province there was a production increase over a large area. In Zhoukou, Shangqiu, and Kaifeng prefectures, which are on the medium- and low-producing Nanyang Basin and Yudong Plain, the total output of wheat on 28 million mu reached 12.8 billion jin, an over 20 percent increase in output compared with that of last year. The output increase of Tanghe, Dengxian, Minquan, Qixian, Taikang, Shangshui, Dancheng, Xiayi, Fugou, Xihua, and Luyi counties in these prefectures was over 100 million jin. Areas that in former times had many disasters and low output have today become new wheat production bases.

Shandong is one of our country's major wheat-producing areas. This year's total output of wheat on the province's over 53 million mu is an attainable breakthrough figure of 20 billion jin, exceeding history's highest record. The total output of wheat this year of Heze, Dezhou, Liucheng, and Huimin prefectures in northwestern Shandong is over 20 percent higher than last year's bumper harvest. A balanced situation of production increases has also appeared in the province's other prefectures. According to the reports made by various places throughout the province to the higher authorities, there could be over 20 counties (prefectures) and cities with a per mu output of 600 jin, and there has sprung up a batch of communes with a per mu output as high as 700 to 800 jin and production brigades with a per mu output of over 1,000 jin. The good circumstances of "one season of wheat providing food for an entire year," which the peasants have for many years longed for, have already become reality for a batch of communes and brigades.

Anhui was the first province in our country to put the production responsibility system into practice, and it is also one of the major winter wheat-producing areas. This year, on the basis of 5 successive years of good harvests of summer grain crops, it again obtained a bumper harvest, with the total output reaching over 12 billion jin, an increase of 1 billion jin over last year's highest historical record, and double that of 1978, before the production responsibility system was put into practice. Twenty counties in Suxian and Fuyang prefectures, located on the Huaibei Plain, and seven counties in Chuxian Prefecture, located in the Jianghuai Hills, had a total output this year of summer grain crops amounting to 10.3 billion jin. In Chuxian Prefecture, the total output of summer grain crops increased more than 2 times above that of 1978. In Suxian Prefecture, the total output of summer grain crops was equal to the prefecture's total output of grain in the entire year of 1978. The total output of this year of summer grain crops in Funan, Yingshang, Fengtai, Huaiyuan, Huoqiu, Shouxian, Fengyang, and Wuhe counties, which last year suffered serious natural disasters, increased by about 6 percent over last year's total output, which was the highest record in history. After the bumper harvest, the peasants said contendedly: "With one season of summer grain crops providing food for the whole year, we are sure to have money to spend from what we reap in autumn."

Hebei Province obtained a big bumper harvest on its 3.5 million mu of wheat, with the total output being 12 billion jin, over 33 percent higher than last year's total output. Throughout the province, no matter whether in mountain areas of plains, no matter whether or dryland or wetland, and no matter whether in high-, and medium-, or low-yield areas, there was increased wheat production over large areas; particularly in Handan, Xingtai, Cangzhou, and Hengshui prefectures, where production conditions are fairly poor, there were fairly big production increases.

In Jiangsu Province, because of natural disasters, this year's total output of summer grain crops in the belt along the Changjiang was not as good as last year's, but a bumper wheat harvest was still obtained in Suzhou Prefecture. This year the total output of Xuzhou City's 6.5 million mu of wheat was 3 billion jin, a 25 percent increase over that of last year.

In Sichuan Province, this year's total output of summer grain crops, with wheat being primary, on its 48 million mu of these crops reached 17.1 billion jin, 900 million jin more than last year. Many peasant families have not eaten all their old grain and with the new grain coming in, they are starting to build, one after another, small home granaries made of bricks, stone, or cement.

This year Yunnan reaped a bumper harvest of summer grain crops. According to preliminary statistics, the total output is 2.5 billion jin, 12 percent more than last year. There were increased outputs of the principal varieties of wheat, grains, and food grains other than wheat or rice. The peasants who wrested the bumper harvest are eagerly selling grain to the state, and summer grain crops are entering granaries throughout the province faster than they did at the same time last year.

Harvesting has started on the 2.9 million mu of wheat in Beijing Municipality's suburbs. According to reports, the wheat is growing better than in previous years; the number of wheat ears per mu and the number of wheat grains per ear are both 10 percent more than they were last year. It is expected that the municipality's total output of summer grain crops will be about 10 percent higher than last year.

In Shanxi, it is expected that there will be a 7 percent production increase on the province's 14.24 million mu of wheat, exceeding that of any previous year. Through first reckonings and all sorts of investigations and forecasts, the total output of the 5.42 million mu of wheat in Yuncheng Prefecture of this province will be 10 percent higher than last year. Bi Huaben [3968 5478 2609], a peasant who is over 50 years old, said: I've grown crops all my life, and this is the first time I've seen this good a year's harvest.

In Shaanxi, even though the province was dry last year and this spring, a bumper wheat harvest was still obtained this year. Last year Xianyang Prefecture in this province had a big bumper harvest of wheat, but this year the total output on its over 5 million mu of wheat increased by 10 percent, setting the highest record in history.

9727
CSO: 4007/200

AGRICULTURAL DEVELOPMENT STRATEGIES IN NORTHERN DRYLANDS

Beijing ZHONGGUO NONGMIN BAO in Chinese 7 Aug 83 pp 1, 2

[Article by Lu Liangshu [5684 5328 1859], president of the Academy of Agricultural Sciences, about strategies and policies concerning developing North China's dryland agriculture]

[Text] Currently, of the entire nation's cultivated land, 25.5 percent is paddy field, 22.6 percent is irrigated dryland, 51.9 percent is unirrigated dryland. The total of the two kinds of dryland makes up three-fourths of the entire nation's cultivated land. The annual precipitation in these areas ranges from 200 to 500 mm. Areas with 200-250 mm annual precipitation are usually classified as dry areas, while those with 250-500 mm annual precipitation are classified as semidry areas.

Of the cultivated land in two districts of our nation's agricultural division, Nei Monggol and the area alongside the Great Wall, and the Loess Plateau is 99.7 percent dryland, only 17 percent of which is effectively irrigated. This is our nation's main dryland agricultural area. For a long time, due to the limitations of both natural and economic conditions, plus indiscriminate cultivation and the felling of trees in some places, the loss of water and soil has worsened, the land has become barren and sandy. In these areas, this has resulted in the very slow development of production and very low productivity. According to the statistics of 275 counties (banners), cities in the dry area, the average grain production per mu was 212 jin in 1978-1980, only equivalent to 38.8 percent of the national average grain production for the same period, which was 547 jin. Research done at home and abroad has proven that every millimeter of precipitation in the dryland agricultural area can produce 0.8-1.3 jin of grain per mu. Calculated on this basis, the production of areas with 300-400 mm annual precipitation can reach 240-250 jin per mu. From this we can see that the vast dryland in the northern part of our country has a great potential for production, we should pay attention to the exploitation and utilization of dryland agriculture. We should change from a one-sided emphasis on the development of irrigation farming to change dryland into paddy field, to giving equal importance to both transforming irrigation farming and dryland farming, in order to combine biological measures with engineering measures, and pay close attention to comprehensive control and comprehensive development.

On the basis of the successful experience within and outside the country and in the light of our nation's situation, the preliminary direction of policy for development of dryland agriculture in the north is premised on comprehensive and rational utilization, protection, rejuvenation and development of natural agricultural resources, maintaining the ecological balance, supporting agriculture with forestry, promoting agriculture with animal husbandry, developing plantation, aquaculture, forestry and pomiculture and diversified economy in accordance with local conditions, and practicing overall development of agriculture, forestry, animal husbandry and industry.

1. While stress is put on irrigation farming, the potential of dryland farming's increasing production should be vigorously exploited.

The major limiting factors in dryland farming are shortage of water, infertility of soil and extensive farming, while dryness is the key problem. Seeing that our country is not one with rich water resources, we cannot rely solely on irrigation to solve our problems. Therefore, at the same time as continuing to strengthen irrigation works and improve their results, we should make the best use of natural conditions, bring into play the advantages of dryland farming and practice "when the water route doesn't work, take the overland route."

Practice proves that improving soil and preserving water with soil also works in fighting against dryness, and results in high and stable yield. The technician, Yang Guiben [2799 6311 2609], of Huangling County's Exemplary Farm, Sanxi Province, said people always thought that the problems of Huangling were "dryness, extensiveness and infertility" in the past, putting "dryness" in the first place, making it sound as if irrigation work was not done, nothing could be accomplished. After several years of practice, people finally changed their thinking, switched the order of the three words and worked hard to solve the "infertility, extensiveness and dryness" problems.

Practicing the scientific utilization of water, economic management of water and mass conservation of water: The entire nation's irrigation area since liberation in 1949 was only 240 million mu, but had increased to more than 670 million mu by 1978. However, according to statistics, the current utility ratio of irrigation water is generally 30-40 percent. The utility ratio will increase to 50-60 percent and the irrigation area will be extended if these practical water conservation measures are adopted: 1) have the regularity of demand of water crops under control; 2) draw on local resources for prevention of leakage in the irrigation ditches and irrigation canals; 3) popularize sprinkling irrigation, dripping irrigation and seeping irrigation and cover it with straw and earth; 4) utilize waste water to solve the conflict between industry and agriculture for water; 5) experience and formulate regulations for water use and water conservation.

Properly adjust the distribution of crops in accordance with local conditions. At places where there are few people and plenty of space, plant forage in cultivated land of less fertility, and practice rotation of grain and forage, thereby developing agriculture and animal husbandry simultaneously. While at places where there are many people and limited space, take rotation cropping,

interplanting and intercropping with green manure as the principal method; interplant green manure between maize ridges and gaoliang ridges, harvest it in the summer time, put it on top of the soil around the crops' roots, then press the manure and earth up, thus not only fertilizing the soil but also preserving the water.

Sift out and breed good drought-enduring varieties as soon as possible. Take millet for instance. It needs only 271 grams of water to make 1 gram of dry substance according to tests, which is 20-30 percent less than gaoliang and maize, 50 percent less than wheat and soybeans.

2. According to experiences within and outside the country, the development of agriculture in the dryland area has to be aimed at increasing income, and strengthening and expanding reproduction capability, while paying close attention to plantation, vigorously developing animal husbandry, forestry and pomiculture, and industrial and sideline production in the villages.

The first thing to be done is to vigorously improve the fertility of the basic farming land available, rapidly increase the per unit yield, conscientiously bring into play the function of high yield and stable yield and become more than self-sufficient in grain as soon as possible.

Develop animal husbandry faster: The three big prairies, the Northeast, North China and Northwest are important as dairy regions as well as for the production of cattle, fine-wool sheep and draught horses. It is absolutely possible to increase commodity ratio from 10 to 50 percent by exploiting the "three North" prairies, and speeding up the development of cattle feed. However, to develop animal husbandry in the dryland agricultural area at the present time, emphasis should still be put on the agricultural area, enthusiastically promoting planting of forage for raising livestock and paying special attention to the development of livestock and fowl specialized households.

Vigorously promoting forestry like promoting grain: Currently, the proportion of land covered by forest is very low in this area and is tending to decrease even more. Dry hilly areas are generally not suitable to be made into a lumbering base, it has to start from stress on herbage and shrubbery and gradually develop into combined forest of herbage, shrubbery and trees. On the basis of comprehensive arrangement and with the gaining of ecological benefits as the target, plant water- and soil-conserving shelter forest, water resource conservation forest and fuel forest. The current top priority tasks are to carry out policies as soon as possible, establishing various levels of forestry production responsibility system and contracting with the peasants for waste mountains and waste mountain slopes which the nation is not able to manage for the time being, to grow herbage and trees and practice management of small river basins.

Develop local specialities by making best use of local superior products such as fruit, dry fruit, materia medica and fur products: These are some examples which have potential. Some can be processed locally, thereby developing industrial and sideline production in the villages, realizing "repeated increases in production" and increasing the peasant income.

3. Adopt organic and inorganic agriculture at the same time in order to ensure the high production and stable production function of dryland farming.

Due to the arid weather and the sparse vegetation, the organic substances in the soil of the tilling layer are very low (mostly 0.5-1 percent) in the dryland area. For this reason, we should, at the same time as increasing chemical fertilizer, set out from the increased application of organic fertilizer so as to improve the fertility of the soil.

Utilize the idle hills, mountain slopes and gullies, as well as openings in forests and in orchards to grow large quantities of green manure like false indigo, ningtiao, shaji, shadawang, sweet clover, alfalfa, etc., in order to open up green manure resources.

Increase the proportion of straw, shells and grass remnants to replenish the fields. To replenish the soil, it is not enough simply relying on human and livestock excrement and urine, we also have to mobilize the masses to develop animal husbandry to collect more barnyard manure and farmyard manure, so as to improve the soil structure effectively and restore the equilibrium of nutrients in the soil.

Improve organic fertilizer with inorganic fertilizer, combining organic and inorganic fertilizer. Under the present conditions in which the application level of fertilizer in the dryland area is very low, it has been demonstrated that every jin of fertilizer can increase grain production by 3-5 jin, while the same amount of chemical fertilizer applied in the high-yield areas can usually increase it by only 1-2 jin, some even less than 1 jin. Therefore, we should adjust properly in deciding priority spots for applying fertilizer, increase the supply of chemical fertilizer in the dryland area, and do the mixing of nitrogenous fertilizer and phosphate fertilizer well so as to improve the fertilizer's efficiency.

4. The combination of conventional tilling experiences with modern scientific techniques is a significant measure in increasing dryland agricultural production.

Our country has a long history with very rich experience in traditional dryland agriculture. The "Rotating Fallow Field Land System" was adopted for dryland farming in the latter period of the Western Han Dynasty. Down through the Kingdom of Wei and Jin Dynasty, and to the Northern and Southern Dynasties, it gradually became a system of traditional agricultural techniques and rich dryland farming experiences which, centering on tilling, raking, breaking up and flattening soil, applying large quantities of farmyard manure, creating and accelerating water and soil conservation, moisture-content preservation in soil, planting of drought-enduring crops, culture of drought-resistent varieties, rotation of crops, culture of drought-resistent varieties, rotation of crops, and combination of utilizing land with replenishing land. However, only when these traditional agricultural experiences are integrated with modern scientific techniques and popularized and utilized enthusiastically, can the ecological benefits and economic benefits be continuously increased, thereby quickening the pace of agricultural construction in our nation's dryland area.

It is practical in our nation's situation to vigorously develop dryland farming. Measures to be employed urgently in order to enable faster development of our nation's dryland farming include: using local resources rationally, making definite the direction of dryland farming development, and working out both short- and long-term development plans. Make fertilization of the soil and adjustment of water with fertilizer the key measures for the present time. Establish a dryland farming research center or comprehensive testing station in accordance with the various characteristics of dryland farming in different types of areas in order to organize cooperation in tackling the main problems in the course of production, thereby providing a scientific basis for the guidance of dryland farming according to differing conditions in the various areas. The cultural level and scientific and technical level in dryland areas, due to various kinds of restrictive conditions, are less developed. In order to speed up development in these areas, stressing investments in intellectual capital and the further execution of policies concerning scientific personnel become even more significant.

12369
CSO: 4007/236

SUPPLY OF LIVESTOCK PRODUCTS INCREASES

Beijing ZHONGGUO NONGMIN BAO in Chinese 9 Aug 83 p 1

[Text] In the first half of this year, we had abundant supplies of livestock and fowl products, procurements increased and the supply in the market was better than in past years. According to the statistics of the China Food Co, the number of live pigs procured January-June was 61.925 million, which was the same as last year; cattle 215,800, an increase of 22.8 percent over last year; sheep 1.605 million, an increase of 35.3 percent over last year; fowl 32.66 million, an increase of 21.1 percent over last year; fresh eggs 1.087 billion jin, an increase of 11.57 million jin over last year.

The procurement of live pigs this year has been good so far and basically has been satisfying the producers' asking price. Due to the adoption of extended marketing and multiple-channel management after the assigned procurement is fulfilled, the state-run food departments, in accordance with regulations, enthusiastically developed the two policies of negotiated procurement and negotiated marketing, thereby increasing the number of live pigs sold by 5.4 percent over the same period of last year. Although there still exists in some places in Shandong, Shanxi, Jiangsu and Liaoning provinces a "pig sales difficulty" phenomenon, the conflict between purchasing and marketing, compared to that of last year, has been alleviated further. The 3.7 jin average decrease in the gross weight of live pigs sold from January to June, an 8 jin average decrease in June proves that the policy which encourages the masses to sell their pigs at the best stage, when the pigs have the most lean meat has begun to show results. The proportion of lean meat in live pigs has increased to some extent. The purchasing and selling of cattle and sheep this year is better than that of last year, and there is a tendency to improve even more. It is estimated that the amount of cattle procured this year as a whole will increase 10 percent and sheep 10-20 percent. This year, the development of fowl production has resulted in an abundance of goods resources, of activity in the markets of the cities and villages, and stable trading prices in the markets. At the beginning of this year, the entire national had 1 billion fowl remaining in inventory, an increase of 12 percent over last year. The number of specialized and priority fowl-raising households reached 1.04 million at the beginning of this year. They raised 96 million fowl, an increase of 250 percent over last year.

12369
CSO: 4007/237

NATIONAL CONFERENCE FOCUSES ON COTTON PROCUREMENT

Beijing JINGJI RIBAO in Chinese 16 Aug 83 p 1

[Text] The National Cotton Procurement Work Conference held in Beijing ended on 15 August. The central topics of this conference were analysis of the trend of thsi year's cotton production, summing up and exchange of experiences in strengthening cotton-related work, and studying how to design good cotton procurement policy.

The total area planted in cotton is 86 million mu this year. In most areas, cotton growth during the seedling stage was better. If no big national calamity occurs from now on, this year will still be one of the best bumper cotton harvest years since the establishment of the nation.

The deputy minister of commerce, Pan Yao [3382 6674], pointed out emphatically at the conference that the purchasing and marketing policy is an integral part of overall village economic policy. It is concerned with the profits of the state, the collectives and the peasants as well as the development of industrial and agricultural production.

In this year's new cotton procurement work, supply and marketing cooperatives everywhere should stress the solution of the following three problems:

1. Insist on the execution of unified purchasing and marketing in the procurement of new cotton, and let the supply and marketing cooperatives do unified procurement work. Educate the peasants to conscientiously carry out the state's procurement policy, selling all their cotton to the state except for the part saved for personal need. People everywhere should cooperate with the industrial and commercial departments in strengthening the management of markets, and resolutely prohibit individuals from bringing cotton to country fairs and buying and selling it. Last year, there were some places which did not pay enough attention to procurement work, and did not enthusiastically procure low-level cotton and substandard cotton. This problem should be conscientiously solved this year.

2. Seriously carry out the cotton-selling and account-settling policies. In cotton-growing areas where remuneration according to the contract responsibility system is practiced, the procurement agencies should respect the wishes

of peasants whose procurement base, according to the household, has been carried out and enthusiastically support their selling by the households and settling accounts by the households. The procurement agencies should, according to regulations, settle accounts (including increased prices) with an award chemical fertilizer and good grain as selling incentives to whoever is selling the cotton. Units which do not sell cotton are not allowed to embezzle the fund for increased prices. The procurement agencies, except for collecting the agricultural tax and the down payment for forward purchasing, should not deduct any money for any department or unit.

3. Do the testing and examinations well, and thoroughly carry out pricing according to quality policy. Conscientiously execute the state's standard, do not lower grades or prices, or raise grades or prices. The "One test and five criteria" testing and examination system should continue to be carried out everywhere, while simultaneously, the testing and examination methods should be enthusiastically improved and the technical level of the cotton examiners should continuously be raised so as to better carry out the policies of pricing according to grades.

12369
CSO: 4007/237

RURAL COMMUNE INCOME UP 84.4 PERCENT IN 4 YEARS

Beijing ZHONGGUO NONGMIN BAO in Chinese 4 Aug 83 p 1

[Text] Statistical data from the National Statistical Bureau show that in the 4 years since the 3d Plenary Session of the 11th CPC Central Committee, the total income of the entire nation's rural communes (including commune- and brigade-run enterprises, production brigades and household sideline production) increased 84.4 percent, or an average annual increase of 16.5 percent, total net income increased 99.9 percent, or an average annual increase of 18.9 percent.

Big Change in the Structure of Rural Commune Income

Of the increases in total income, the largest in scale was the income of peasant families' sideline production, 165 percent in 4 years; that of commune- and brigade-run enterprises increased 84.6 percent; that of production brigades increased 51.7 percent. The proportion of the income of the commune- and brigade-run enterprises basically remained at about 22 percent a year, but that of the production brigades dropped from 55.4 percent in 1978 to 45.6 percent in 1982, while that of family sideline production increased from 22.4 to 32.1 percent.

Proportion of Agricultural Production Expenditure Dropped and Economic Benefits Rose

Due to the widespread practice of remuneration according to the household contract responsibility system as the main form of responsibility system and the continuous popularization of scientific techniques, the economic benefits of agricultural production have been greatly improved. In the past 4 years, the proportion of total production expenditures in the total income of the entire nation's rural communes decreased 5.1 percent, the total income from every 100 yuan spent was 288 yuan, an increase of 36 yuan in 4 years; the average rate of increase of total expenditure in 4 years was 3.9 percent lower than that of the total income rate.

More Contribution to State, Slight Increase in Ratio of Profit Retained by Collectives, Large-Scale Increase in Personal Income of Commune Members

The large-scale increase in the net income of rural communes resulted in increased by various amounts in the income of the state, the collectives and in-

dividual commune members, and so the proportions of the total income changed accordingly. Of this, the personal income of commune members increased most rapidly, 120 percent in 4 years, and its proportion in the commune net income rose up to 86.2 percent. State tax revenues increased 48.3 percent, but their proportion went down to 4 percent; the profit retained by the collectives increased 18 percent, while its proportion wend down to 9.8 percent. Of the profit retained by the collectives, the proportion of that retained by the production brigades decreased from 14.2 percent in 1978 to 9 percent.

Accumulation Increased, Accumulation Ratio Went Down, Consumption Increased, Consumption Ratio Rose

Due to the large scale of increase in peasant income, the peasants' daily consumption volume increased 107 percent in 4 years, of which more than 98.4 percent was spent directly on the peasant families' daily consumption. For the past 4 years, the accumulation volume within the communes increased 63.7 percent. However, the accumulation rate decreased from 12.5 to 10.1 percent, while consumption increased from 87.5 to 89.9 percent. This is exactly the result of adjusting the distribution ratio, and increasing the peasant income on a larger scale at the same time as the development of production.

12369
CSO: 4007/236

'TWO HOUSEHOLDS' MAIN TARGET OF NATIONAL FARM LOANS

Beijing ZHONGGUO NONGMIN BAO in Chinese 4 Aug 83 p 1

[Text] In the first part of this year, the entire country's specialized and priority households have become the main target of national agricultural loans, making up over 60 percent of the entire nation's total agricultural loans. The accumulated total of loans granted in the first half of this year was 13.12 billion yuan, an increase of 7.47 billion yuan over the same period of last year. Their proportion of the collective agricultural loans rose from 44.9 percent for the same period of last year to 75.9 percent.

On supporting the development of diversified economy, various levels of agricultural banks stressed helping specialized and priority households in their loan-granting work, and special care was taken to give preference to specialized and priority households in aquaculture and plantation.

Agricultural banks and credit cooperatives all strengthened their support to county communes with a commodity grain base, and grain specialized households more conscientiously this year.

In order to support the specialized teams, specialized groups and specialized households which practice remuneration according to the contract responsibility system and to support the new economic integration, exploratory loans have been experimented with everywhere this year in accordance with the local production program and exploration of uncultivated mountains, waters and shoals. There have been 8.5 million yuan of exploratory loans granted in 20 provinces, cities and districts in the first half of this year.

12369
CSO: 4007/236

MANAGERIAL CONTRACT SYSTEM INCREASING IN COMMUNE-, BRIGADE-RUN ENTERPRISES

Beijing ZHONGGUO NONGMIN BAO in Chinese 4 Aug 83 p 1

[Text] By now, most of the 1.36 million commune- and brigade-run enterprises in the entire nation have practiced multiple forms of the managerial contract responsibility system. As a result, practice has further strengthened the enterprise members' enthusiasm, improved management, and raised economic benefits. Currently, this significant managerial reform has had a tendency to keep on developing.

In recent years, the remuneration according to contract responsibility system which has become widely practiced in agricultural production everywhere has become very attractive to commune- and brigade-run enterprises. "The more you read the 'scripture' of the agricultural remuneration according to contract responsibility system, the more effective it will be," therefore, some commune- and brigade-run enterprises also followed the example and adopted a "contract" and thereby attained very good economic results. However, there are still very few commune- and brigade-run enterprises employing managerial contracts. After Document No 1 of the Central Committee was issued this year, the management department of every level of party committee, government and commune- and brigade-run enterprises conscientiously carried out the spirit of the relevant directives of the Central Committee, and vigorously promoted the managerial contract work of commune- and brigade-run enterprises. In December last year, the leading comrade of the Sichuan Provincial Party Committee directed the Provincial Commune- and Brigade-run Enterprise Bureau to make managerial contracts an important task to be given attention this year. In March this year, this very Provincial Commune- and Brigade-run Enterprise Bureau held a specific meeting for this and studied how to handle this task. Hubei Province popularized the timely experiences of its Echeng County's implementation of the managerial contract responsibility system. Successive meetings were held in every locality, city and most counties to study how to handle the task. These all promoted the swift and strong development of managerial contract work. The contract forms employed by commune- and brigade-run enterprises vary from place to place, some are collective contracts among the enterprises' staff and workers, some are contracts of factory directors (managers) elected through democratic election or consultation, some are contracts among a few people (their representative, upon approval, becomes a factory director of manager), some are individual contracts or family contracts.

The large quantity of material provided by some provinces and districts shows great preference for the commune- and brigade-run enterprises' managerial contract responsibility system. Those commune- and brigade-run enterprises which employed contracts earlier and worked conscientiously to solve new problems, all overcame the disadvantages of "eating from the same big pot" better, and further provoked the cadres' and personnel's enthusiasm, promoted the rectification of enterprises and strengthened the management of enterprises, while at the same time, tapping and creating large numbers of qualified enterprise managerial personnel. The developmental speed and economic benefits of many enterprises increased very significantly after they had a contract. Many enterprises which had always been backward and in deficit changed completely after they had a contract.

According to the statistics of more than 10 provinces and districts, commune- and brigade-run enterprises' output value increased 20 percent over the same period last year as a result of the common practice of the contract system. The total output value of Hebei Province's commune-run industry increased 32.6 percent over the same period last year.

With the development of the commune- and brigade-run managerial contract responsibility system, there will inevitably appear many new problems which demand prompt solutions. Various levels of concerned departments are investigating, summarizing and popularizing new experiences.

12369
CSO: 4007/236

METHODS OF COMBATING TWO MAJOR COTTON DISEASES DESCRIBED

Beijing NONGYE KEJI TONGXUN [AGRICULTURAL SCIENCE & TECHNOLOGY NEWSLETTER] in Chinese No 4, 1983, p 25

[Article by Yao Yaowen [1202 5069 2429] and Shi Leiyan [4258 4320 1484] of the Plant Protection Research Institute of the Chinese Academy of Agricultural Sciences: "Comprehensive Prevention and Cure of Fusarium Wilt and Verticillium Wilt of Cotton"]

[Text] Fusarium wilt and verticillium wilt of cotton are two important diseases of a universal nature that seriously threaten cotton production. To different digress they have spread and done harm to the main cotton-producing regions of our country. In 1973, in China the area attacked by the diseases was 5.5 million mu, or 10 percent of the cotton fields; in 1981 the area attacked by the diseases rose to 11.52 million mu, or 19.4 percent of the cotton fields, so that in less than 10 years time the area of cottonfields in China attacked by the diseases increased by almost one fold. The harm done by these two diseases is serious, and they cause big losses. Fursrium wilt in particular frequently leads to a large number of dying fields by causing stems to fragment and ridges to break, at the minimum reducing output by 20 to 30 percent and at the maximum by over 50 percent or even no harvest at all. In a year when the diseases are serious, China loses about 2 million dan of ginned cotton.

Over a long period of preventing and curing fusarium wilt and verticillim wilt, our country has summed up and popularized a complete set of countermeasures for prevention and cure by which it has obtained fairly big successes and distinct economic results.

1. Strengthen Plant Epidemic Disease Inspection, Strictly Protect Disease-Free Areas

In China now the area of cotton fields free from disease is about 80 percent of the total area planted to cotton, and the key to protecting the disease-free cotton areas is to take competent measures to stop the introduction into them of fusarium wilt and verticillium wilt carrier seeds, infected bodies, and carrier fertilizers. Carrier cotton seeds are the first source for the long-distance propagation of fusarium wilt and verticillium wilt. Therefore, the shipment of cotton seeds from a disease area to a disease-free area must be controlled. We vigorously advocate the setting up of

disease-free and seed supply bases or reserve seed fields, and the selection and retention of disease-free cotton seeds. Units that really must ship in a small number of cotton seeds must do so in accordance with the epidemic inspection requirements, and they must strictly disinfect the cotton seeds. The specific methods are: 1) first, delinting with sulphuric acid solution and then soaking for half a hour in a 55° to 60°C hot liquid solution composed of 80 percent-strength antibiotic to 2,000 parts water; and 2) immersing the seeds for 14 hours at normal atmosphere temperature in a 0.3 percent active ingredient multibacterial agglutinative suspensoid solution. These two methods are able to achieve results in thoroughly wiping out fusarium wilt and verticillium wilt. In addition, it is not permitted to use fertilizer that has not had its infected parts soaked at high temperatures, as well as cold fried-oil cottonseed cakes, in order to avoid the introduction of fusarium wilt and verticillium wilt into disease-free areas.

2. Popularize Good Disease-Resistant Varieties, Transform Areas Where Disease Is Serious

Currently the varieties that are being popularized over a wide area and that tend to be superior in producing high yields are "5haan 401," "No 86-1," and "Chuan 73-27." Through production demonstrations over a wide area the fusarium wilt-resistant variety "No 86-1" has become fairly prominent. Its main characteristics are: 1. It has a strong resistance to fusarium wilt. When planted in a fusarium wilt area, it normally brings the disease-incidence rate down to less than 3 percent. 2. It produces high yields. Its output of ginned cotton is on the average 18 percent more than that of the fusarium wilt-resistant variety "Shaan 401" and 50 to 100 percent more than that of high-yield varieties affected by fusarium wilt. 3. Its fiber quality is excellent, its down is 39 to 31 mm long, its gin turnout rate is 39 to 42 percent, its cotton wool is pure white, and its sold-cotton grade is high. 4. Its range of suitability is broad. It has already been planted in areas where the disease is serious in the provinces of Zhejiang, Jiangsu, Anhui, Hubei, Hunan, Sichuan, Henan, Shandong, Hebei, Shanxi, and Shaanxi. By 1981 it covered areas totalling 2.2 million mu, or 44 percent of the areas planted with disease-resistant varieties in China, and had done a lot to control the harm done by fusarium wilt. For example, in Shazhou County, Jiangsu Province, in 1979 the Zhaofeng Commune, in which fusarium wilt was serious, planted "No 86-1" on 918 mu, and the average per mu output of ginned cotton was 181.5 jin; compared to the average per mu output of 95.2 jin in 1978 when "No. 86-1" was not planted, this was an increase of 86.3 jin, or a production increase of 90.6 percent. Next in line in the fusarium wilt-resistant varieties is "Chuan 73-27," and its planting is now mainly being popularized in Sichuan. Its prevention efficiency is also quite marked. For example, Shehong County in this province planted "Chuan 73-27" on its fields with fusarium wilt, and the normal disease-incidence rate was about 5 percent. The 4-year average per mu output of ginned cotton was 94 jin, a production increase of 22.7 percent over the 4-year average per mu output of 76.6 jin before this variety was popularized. The grand total for the area on which it was spread was over 135 million mu, on which 11.86 million jin more ginned cotton was gathered, increasing income by 11.86 million yuan.

3. Rotate Crops, Control and Reduce Disease in Lightly Hit Areas

Practice over many years has proved that planned crop rotation, especially rotating wet and dry crops, brings marked results in prevention and cure. According to an experimental survey of Hubei Province, if crops are rotated by planting rice for 3 years and then planting cotton, the incidence of fusarium wilt falls to 0.3 to 3 percent, and the prevention and cure effect is 97 to 99.3 percent higher than if there is continuous cropping. Qidong County, Jiangsu Province, has investigated the restraining effect of wet and dry crop rotation on fusarium wilt of cotton. The investigation proved that there is a direct ratio between the number of years that rice is planted and the mitigation of the disease rate: the incidence-disease rate of cotton planted after 1 year of rice is 8.19 percent, and the rate is 2.26 percent if cotton is planted after 2 years of continuous rice cropping. In Henan Province, Liuzhuang Village of Xinxiang County had a disease-incidence rate of 40 percent and a dead seedling rate of 25 percent from fusarium wilt and verticillium wilt on its cottonfields. It then put into practice a system rotating cotton and corn crops after which for 4 years in succession it planted cotton, and the incidence rate of fusarium wilt and verticillium wilt fell to 0.4 percent. While practicing crop rotation, we must stress the adoption of effective measures such as having cotton seeds free from fusarium wilt and verticillium wilt, setting up disease-free seed fields, and applying bacteria-free pure fertilizer, in order to reduce the sources of bacteria, control the spread of disease, and insure that crop rotation exercises its proper effect of controlling disease.

4. Eradicate the Sources of Bacteria in Soil, Eliminate Scattered Areas of Disease

Usually it is not easy to discover individual plants in scattered areas of disease, and coupled with the fact of unhindered production increases, it is frequently not easy to draw attention to them. We must publicize the principle of "by curing one plant in the initial stage of disease, one can avoid a dead stretch of land when the disease becomes serious; this entails trouble at the beginning, but future trouble can be averted." In the year that disease is discovered it should be immediately eliminated, so that by stamping it out at one point a whole stretch of land is safeguarded. In the past several years, Shandong Agricultural College, the Cotton Institute of the Chinese Academy of Agricultural Sciences, and other units, through repeated greenhouse experiments and field demonstrations, have proved that the following drugs have the effect of thoroughly eradicating the primary bacterium surrounding the roots and stems of plants suffering from fusarium wilt and verticillium wilt, and all areas can make use of local materials in selecting and using them:

1. Luhuaka [3048 5363 5288]. On every square meter of diseased land, dig 25 holes that are 20 cm deep and pour 5 mm of Luhuaku into every hole. Or irrigate every square meter of diseased land with 90 percent Luhuake emulsion in 90 jin of 360 parts diluent. The effect will be the same as if Lukuake had been injected into the land, and this method is simple and easy.

2. 22 Emulsion (emulsified DD). Enclose every square meter of earth surface with a low narrow bank of earth, and then irrigate the fusarium wilt point with 90 jin of 22 Emulsion to 200 parts diluent and the verticillium wilt point with 90 jin of 22 Emulsion to 160 parts diluent.

3. One hundred forty grams of 50 percent strength Mianlong [2758 7127] wettable powder can be dissolved in 90 jin of water, and the mixture poured into the one square meter of diseased land enclosed by the low narrow bank of earth.

9727
CSO: 4007/207

PROPORTION OF CHEMICAL FERTILIZERS SAID TO NEED READJUSTMENT

Beijing RENMIN RIBAO in Chinese 30 Jun 83 p 3

[Article by Liu Gengling [0491 2557 0659] of the Soil Sciences and Fertilizers Research Institute of the Chinese Academy of Agricultural Sciences, in the "Suggestions" column: "Readjust the Proportion of Chemical Fertilizers, Improve the Effect of Fertilizer"]

[Text] At present, in our country's production and utilization of chemical fertilizers, there exists a serious imbalance in the proportion of nitrogenous, phosphate, and potassium fertilizers. For over 30 years, the total investment in the nitrogenous fertilizers has been 80 percent of the total investment in chemical fertilizers, with the result that nitrogenous fertilizers have developed rapidly, phosphate fertilizers have developed slowly and potassium fertilizers are almost a blank, so the contradiction is extremely sharp. In the 1960's, 1 jin of standard nitrogenous fertilizer could increase the production of grain by 3 to 5 jin; now, because the fertilizer is not mixed with phosphate and potassium fertilizers, every jin of nitrogenous fertilizer can only increase production by a little over 1 jin, and in some places that lack potassium and phosphate, more nitrogenous fertilizer is applied, which sometimes even causes a reduction in production. The peasants are very dissatisfied with this situation, saying it is a case of "being overworked for nothing and spending money to buy a reduction in output."

It looks as if the first thing that must be done to improve the effect of chemical fertilizers is to readjust their proportion and insure a balanced application of fertilizers. Currently what is of utmost importance is to take effective measures to expand the production of phosphate and potassium fertilizers. As for nitrogenous fertilizers production, the main thing is to improve its quality, reduce losses (every year China loses by volatization 1 million tons of nitrogenous fertilizer during the shipping process), and improve economic results. If we do not readjust the speed of developing nitrogenous, phosphate, and potassium chemical fertilizers but continue to produce a large amount of nitrogenous fertilizers, the problem of the imbalance in the proportion of chemical fertilizers will become more serious, thus destroying the useful microorganism system in the soil and causing a deterioration of agriculture's ecological environment, with serious consequences for agricultural production.

In order to mitigate as fast as possible the contradiction of a serious imbalance in the proportion of nitrogenous, phosphate, and potassium fertilizers, we can mix a limited amount of phosphate and potassium fertilizers with the nitrogenous fertilizers to make all kinds of proportionate compound fertilizers. A compound fertilizer, also called a multinutrient chemical fertilizer, has many superiorities as compared with a single-nutrient fertilizer. It saves on packing and shipping costs, and is convenient to store and use; it has a high density and many nutrients, and its fertilization effect lasts a long time. It is able to comprehensively satisfy a plant's growth needs, and its effect on increasing production is higher than that of a single application of one kind of fertilizer. For example, in the North China region, if there is a single application of nitrogenous fertilizer, every jin of standard fertilizer can increase grain production by 1.4 to 2.5 jin, but every jin of standard mixed nitrogenous and phosphate fertilizer can increase grain production by 2.5 to 4 jin, resulting in a nearly one-fold increase. In the rice areas south of the Changjiang River, only nitrogenous fertilizers are applied, and every jin of ammonium sulphate could increase paddy production by 1.6 to 2.7 jin, and every jin of ammonium sulphate mixed with potassium fertilizer can increase paddy production by 3.4 to 5.2 jin. It is quite obvious that if nitrogen-phosphate compound fertilizer is popularized in the north and nitrogen-potassium compound fertilizer is popularized in the south, we will be able to obtain fairly high economic results. Sixty-four percent of the ammonium carbonate compound fertilizer produced by our country is effective ingredients, and according to the statistics of 346 fertilizer efficiency experimental points it has clear production-increasing effects on over 20 kinds of crops in wetland and dryland, with the application of 30 jin of ammonium carbonate increasing production per my by over 30 percent. We can assert categorically that compound fertilizers are the direction in which chemical fertilizers will develop in the future.

To improve the effect of fertilizers, we must take the path of integrating organic fertilizers with chemical fertilizers. Green manure and organic fertilizers can improve soil structure, regulate soil temperature, mitigate soil erosion, and preserve more moisture in the soil. Not only is this the case, but legume green fertilizers can regularize the nitrogen elements in the air and turn it into the nitrogenous fertilizer needed by plants; plants of the mustard family can activate the phospherous element in soil and change it from a state of being unable to supply plants to a state in which it can be used by plants; and some green manure can enrich and concentrate the potassium element in the water and air, thereby improving the supply of potassium element to the soil. All green manure and organic fertilizers can supply the soil's beneficial microorganisms with organic sources of energy, causing them to reproduce and become active. Practice proves that soil that has had a lot of organic fertilizer applied to it is comparatively rich in nutrients, and at the same time it is enabled to insure that greater results are displayed by chemical fertilizers.

In addition, the importation of phosphate and potassium fertilizers or phosphate and potassium mineral products is appropriate. This is of far-reaching significance for protecting our country's resources of phosphate and potassium fertilizers.

9727
CSO: 4007/197

MAGGOTS RECOMMENDED AS GOOD SOURCE OF CHICKEN FEED

Beijing RENMIN RIBAO in Chinese 30 Jun 83 p 3

[Article by Yu Guangyuan [0060 0342 6678]: "Economic Results of 'Raising Flies in Cages'"]

[Text] Flies are one of the "four pests." But this refers to flies that fly around freely and spread disease. But if they are controlled and shut up in cages, the situation is reversed and they can become an important source of protein for feed.

I heard a briefing given by a comrade at the China Technology and Economics Research Society, in which he said that a commune poultry farm in Tianjin got very good economic results by making this kind of "transformation." Comrades of the poultry farm obtained an understanding of the scientific principles involved from the Feed Research Institute of Beijing Municipality, and an excellent species of fly was recommended by the Biological Institute of the Chinese Academy of Sciences. Through simple, easy, and scientific methods, they gathered the eggs of this fly and put them on suitable materials where they grew into maggots. They then mixed the maggots with other feed and fed them to layers, with extremely good results.

The scientific principles involved here are very simple. A dry maggot contains 59.39 to 63 percent raw protein and 12.6 percent raw fat, about the same protein and fat content as in fish meal (Peruvian fish meal contains 60.4 percent raw protein and 8.4 percent raw fat). Maggot meal and fish meal both contain all sorts of amino acids needed by poultry and domesticated animals, and they also contain a considerable amount of calcium and phosphorus. The results of practice were: every chicken ate 10 grams of fresh maggots a day, and over a 110-day test feeding period, the number of weight of the eggs they laid both rose by 11 percent. In an experiment in which maggots replaced fish meal, a layer of 15 to 20 grams of fresh maggots a day, which satisfied its required amount of animal protein.

In toting up the accounts, based on data provided by this commune poultry farm, provided there are proper controls, on every square meter of culture area 1 jin of fresh maggots can be produced per day, and the cost of the materials consumed for every jin of fresh maggots is only 2 fen. Even with the artificial raising fee, the cost is only 7 fen. Calculating 4 jin of fresh maggots as equal to 1 jin of fish meal, this is only 40 percent of the market price of Peruvian fish meal in our country. According to this calculation, by investing 4.47 yuan we can produce 320 more eggs, with a total weight of 46.6 jin and an income increase of 54 yuan. Moreover, after the materials for raising maggots are used, they can be re-used to fertilize fields or act as raw materials for making methane.

The feasibility and economic results of the technique of breeding flies in cages has been fully confirmed. Experts have already appraised it as such. I suggest that it be popularized and spread throughout the country. In this short article I do not want to write about the technical methods involved. I think that the Chinese Technology and Economics Research Society, which briefed me on this experience, has the data on this aspect. Here I only want to say that only if a fly is controlled by being caged is it not a harmful insect. If we let a fly fly around freely, then it is not a source of nutrition but a spreader of disease. We must destroy without mercy flies outside cages. At the same time, in order to preserve good species of flies, we must not permit mixed species to fly into the cages. When popularizing the breeding of flies in cages, we must do good sanitation and antiseptic work and protect the ecological environment. This is an extremely important matter and certainly must be handled.

9727
CSO: 4007/197

PROTECTION OF SPECIALIZED HOUSEHOLDS' LEGAL RIGHTS

Fuzhou FUJIAN RIBAO in Chinese 9 Sep 83 p 1

[Article by staff commentator: "Earnestly Protect Specialized Households' Legal Rights"]

[Text] Since Fujian adopted the responsibility system that links planned output with remuneration, all kinds of specialized households have sprung up like bamboo shoots after a spring rain. They have become the "front-line troops" of commodity production and the pacesetters in the peasants' diligent drive toward wealth. Specialized households must grow in a smooth and healthy way. Besides a policy of continuing stability, a stable environment is extremely important. No one can "work contentedly" without "living in peace." Only in a fine, stable living environment, where the safety of life and property is guaranteed, can specialized households expand production without worry. As is now reflected in quite a few localities, specialized households' production and life have suffered serious disturbances. Some eat and work without payment, others need money and materials. In particular, those lawless elements that love ease, hate work and do evil, openly loot and secretly steal specialized households' property. They threaten, extort and commit premeditated crimes. They inflict great damage on specialized households' property, discouraging their enthusiasm about expanding production. Today this newspaper is carrying a story about the beating of Li Lixin [2621 4539 2450] and his son, who have a major forestry household. This is a typical example.

The protection of specialized households' legal rights has particularly important significance in current rural work. Specialized and major households create much more material wealth than ordinary commune members do. Not only do they increase their own income, but they also sell large quantities of farm products and byproducts to the state and help support state construction. They are the representatives of the new productive forces in the countryside. Hence protection of the "two households'" legitimate production and legal economic interests is also protection of the countryside's new productive forces.

Some of the countryside's criminal elements now frequently target the "two households" for extortion, blackmail, swindles, theft and other evils. Although these cases are not numerous, they are a great danger if not handled properly, because they negatively influence some commune members who were preparing to engage in specialized production and who now dare not boldly go on

the path of diligence to wealth. Therefore, cases of infringement upon the "two households'" legal rights cannot be handled lightly. Serious criminal activities in the countryside must be dealt decisive blows.

The protection of specialized households' legal rights requires support from all quarters. The relevant departments should place every case of robbery and blackmail of specialized and major households among serious criminal cases, marshal their forces to investigate and crack them, and punish the serious criminal elements quickly and severely. Cases of attempted robbery and blackmail must also be proved through investigation and dealt with according to the law. Only in this way can the protection of specialized households' legal rights be realized and specialized and major households produce well without worry.

12570
CSO: 4007/252

STEPS TO PREVENT DECREASE IN CANE SUGAR CONTENT NOTED

Fuzhou FUJIAN RIBAO in Chinese 12 Jul 83 p 2

[Text] In the last two sugarcane pressing seasons, the sugar content of our province's sugarcane has been decreasing on a large scale -- as much as 1.5 percent -- and has caused a great loss to sugar production as well as to revenues. Technologists commonly think that unusual weather, inadequate cultivating skill and improper care of materials are the three main reasons for the decrease in sugar content. Since for the time being we still cannot determine the main and secondary reasons for the decrease in sugar content scientifically, accurately and with sufficient evidence, for the reference of the units concerned, we are just going to offer our suggestions as to how to prevent the sugar content from decreasing because of existing problems with respect to agricultural techniques and measures.

1. To Popularize and Expand Improved Early Maturing High Sugar Varieties Immediately

Minxuan [Fujian choice] No 703 and Mintang [Fujian sugar] No 70/611 are two early maturing high-sugar varieties our province has selected and cultivated. The sugar content of both is higher than Taitang [Taiwan sugar] No 134. The comparison of the decrease in the sugar content scale in the last two sugarcane pressing seasons shows that the sugar content of the two early maturing high-sugar varieties decreased on a relatively smaller scale, and that sugar refineries with more areas planted in these two varieties have higher sugar content in their sugarcane products. This shows that the popularization of these two early maturing high-sugar varieties has an important and practical meaning in preventing the sugar content from decreasing on a large scale. Especially true is the Puxian sugarcane area where there is less area planted in the two varieties. We should adopt some powerful measures to speed up the propagation and popularization of the two varieties.

2. Use Fertilizer in Proper Quantity and Stop at the Proper Time

Ever since the adoption of the remuneration according to contract responsibility system in the villages, there is a very serious phenomenon among sugarcane growers on the application of nitrogenous fertilizer -- they either apply it unevenly, apply it twice or delay applying it. This will not only waste

fertilizer, but also lower sugar content. According to our tests, overapplication of nitrogenous fertilizer doesn't help much in increasing the production of sugarcane stalks, but it has a great negative effect on the sugar content of sugarcane. We think the proper amount of ammonium sulfate needed for the sugarcane in our province is generally 150-200 jin per mu, and should not exceed 200 jin. Therefore, we should strengthen the propaganda for the scientific application of fertilizer so as to apply fertilizer in the proper quantity and not to waste fertilizer and lower sugar content. Besides, cutting off fertilizer application early or late has great influence on sugar content, too. According to the growth pattern of sugarcane, June, July, August and September are the 4 months during which it grows most luxuriantly; therefore, the application of fertilizer should be concentrated in this period. Application of fertilizer after October when the temperature has clearly dropped has very little effect on the growth of sugarcane stalks. For this reason, the application of fertilizer should be stopped for newly planted sugarcane in August, and should not be later than the first 10-day period of September. For biennial root sugarcane, the time to stop using fertilizer should be half a month earlier.

3. Control Irrigation in Mature Period

From November on, sugarcane enters a technically mature period when the growth rate is very slow and the sugar content accelerates rapidly. It requires very little water during this period. Too much water and high temperature would promote the growth of sugarcane and dissolve the already stored sugar into glucose and fructose which is needed for growth, thereby decreasing the acceleration of sugar content. Although cool temperatures do not promote growth, the increase in water content of the sugarcane stalks decreases their sugar content. Therefore, having good control of the moisture content of the soil during this technically mature period is extremely important for improvement in the sugar content. According to our tests, sugarcane which is planted in fields with 30-40 percent moisture content have the highest sugar content, while fields with more than 45 percent moisture content give a sugar content which very clearly decreases without much increase in the production of sugarcane stalks. For this reason, we should educate sugarcane growers not to irrigate blindly, both to save water and improve the sugar content of sugarcane.

4. Harvest Earlier Those Which Mature Earlier and Later Those Which Mature Later

The sugar content of varieties which mature at different times, as well as of autumn sugarcane, of biennial root sugarcane and of newly planted sugarcane, differs a great deal during the early sugarcane pressing season. Therefore, we should follow the order of their maturity and harvest earlier those which mature earlier and later those which mature later. In recent years, because of the implementation of the remuneration according to contract responsibility system, sugarcane growers all strive to harvest their products early so they can raise the utilization ratio of land and stagger their busy seasons. This kind of action causes a great loss to the sugar content of the sugarcane. We

should educate the peasants to conquer their "think about myself and forget about the country" way of thinking and follow the arrangements of the sugar refineries so as to raise the ratio of sugar content.

12369
CSO: 4007/215

BRIEFS

SUMMER GRAIN PROCUREMENTS--In Fujian on 25 August, 21 commodity grain base counties overfulfilled their aggregate summer procurements in grain by nearly 90 million jin. Longhai, Jianyang, Jiangle and the 18 other old and new commodity grain base counties that account for more than 47 percent of Fujian's summer grain procurement have happily sold grain to the granaries this summer while the surplus grain that they have sold to the state has already amounted to about 54 percent of Fujian's summer grain procurement. Of these, Jianyang, Shanxian, Shaowu and Changtai Counties all oversold by 10 million jin or more. Among 8 new commodity grain base counties, Jiangle, Shaxian, Shunchang, Qingliu and Songqi overfulfilled the summer grain procurement by 10 to 30 percent or more. According to preliminary statistics, the more than 313,400 farm households that make up nearly one-third of these commodity grain base counties' farm households sold enough grain in the first quarter of the year to overfulfill the year's procurement. After fulfilling the summer grain procurement, each commodity grain base county has begun to sell large quantities of grain at negotiated prices. Just the grain sold to the state at negotiated prices by 8 commodity grain base counties in Jianyang Prefecture exceeds 73 million jin. [Text] [Fuzhou FUJIAN RIBAO in Chinese 30 Aug 83 p 1] 12570

CSO: 4007/252

SAMPLING SURVEY METHOD PROVES MORE ACCURATE

Guangzhou NANFANG RIBAO in Chinese 14 Jul 83 p 1

[Article about calculating agricultural output by use of sampling survey method]

> [Text] (Editor's note) Under the new situation in which remuneration according to contract responsibility system is commonly practiced, how to restructure the statistical system in order to further improve the accuracy of the statistical figures of agricultural output, and to provide real-time messages on the changes in the village economy, is a new problem urgently awaiting solution in the field of village statistics. Our province's practice proves that the development of the sampling survey is like killing three birds with one stone: it saves manpower, provides timely materials and obtains figures closer to the facts.
>
> Every level of party and political leaders should conscientiously strengthen the leading role of statistical work politically, organizationally and professionally. At the same time, they should coordinate the statistical power of the county, the commune and the team to form a complete agricultural output survey corps. Besides, they should conscientiously arrange for the funding of statistical surveys and the working conditions necessary for the investigators. The development of the sampling survey should be carried out thoroughly everywhere and be made into a system to be carried on permanently. It should provide timely statistics on the amount of agricultural output, statistics which the leading organizations and concerned departments can trust while making plans and formulating policies.

After the realization of the remuneration according to contract responsibility system, and the restructuring of the form of the organization of agricultural production, the objects of agricultural statistics have also changed accordingly. How can agricultural output figures be calculated more accurately?

Lately, on explaining the condition of its survey of four regions and 12 counties, the provincial statistical bureau said that the sampling survey is a scientific method and an accurate, fast and economical way of obtaining agricultural output statistics.

Last year, the figure of Qionghai County's late rice output as calculated from a survey sample of the commune was 116 million jin, and that from a survey sample of the whole county was 124 million jin, while that calculated from a survey sample of the peasant households was very close to that of the whole county. In recent years, the Shengjiang area has been undergoing a sampling survey of agricultural output. For the late rice output of the whole area last year, the area statistical bureau, by choosing some spots as survey samples, calculated the total output was 3.322 billion jin; while the figure obtained by each county using the same method was 3.3 billion jin, and that obtained by each commune also using the same method, was 3.292 billion jin. The figures obtained from these three quarters are basically the same. In 1981, while calculating the total output of Lianjiang County's late rice, reports from the communes showed an increase of 10 million jin over the same period of the previous year, while the county statistical bureau, using a sampling survey, calculated that there was a decrease of 36.4 million jin from the previous year. This is a really big gap. The harvest and checkin of the crop proved there was a decrease of 33.61 million jin in the entire county.

At present, some areas have already adopted the sampling survey method for calculating the output of agricultural crops, such as peanuts and sugarcane.

Practice has shown there are some advantages to using the scientific sampling survey method to calculate agricultural output over that of overall calculating and reporting level by level to the higher authorities; by excluding the factor of human dishonesty, the statistical figures can be closer to the facts. This method is fast and saves manpower and can obtain results 2 to 3 months earlier.

12369
CSO: 4007/215

NEW APPROACH TO LINKING RESEARCH WITH FARM PRODUCTION DESCRIBED

Shijiazhuang HEBEI RIBAO in Chinese 14 Jun 83 p 2

[Article by Ceng Shufan [2582 1659 3058], first secretary of the CPC Committee of the Shijiazhuang Agricultural Modernization Research Institute under the Chinese Academy of Sciences: "A New Way of Combining Scientific Research With Production in Agriculture"]

[Text] Since the 3d Plenary Session of the 11th CPC Central Committee, confronted with the new situation in which the peasants fervently need science, the great number of agricultural scientists and technicians here adopted all sorts of methods to spread and popularize agricultural science and technology, and the great number of peasants, side by side with them, have explored new ways to combining modernized agriculture's science and technology with agriculture's production practice so as to directly turn them into productive forces, and have come up with an embryonic form of a scientific research-production integrated system.

For a long time in our country there have existed many problems with regard to how to closely integrate scientific research with production links. For example: the fact that scientific research units and production departments do not have mutual contacts frequently leads to the research topic not being the problem that urgently needs to be solved in production, and because production lacks the guidance and application of advanced science and technology, it always fluctuates around one level; because there is a sharp division between scientific research units and information is consequently blocked, there often appears the phenomenon of research projects being identical and of duplication of labor at a low level; and in the distribution of scientific and technological forces, they are relatively concentrated at the central and provincial research units, and there are very few of these people at the first line of production and their forces are weak. Since the third plenary session, through active probes on the part of the great number of workers in the field of agricultural science and technology, rural work cadres, and the great number of peasants, a new system favorable to the close integration of science and technology with production links is gradually being found. The embryo of the integrated system that the masses are now happy to practice contains many forms such as "technical contract responsibility system," "technical contract system," "scientific and technical

consultations," "transfer of technology," "experimental bases for agricultural modernization," and "comprehensive scientific research service departments." Most of them are formed by the two sides--scientific research and production--or by many sides, and, by providing advanced science and technology, they insure that economic results are improved in agriculture, forestry, animal husbandry, sideline occupations, and fishery.

The members of the scientific research-production integrated system that was set up have completely broken the original bounds between departments in order to do their all for the common goal. Second, they are able to introduce and popularize swifly and effectively the advanced achievements of science and technology in China and abroad that are urgently needed for agricultural production. Third, the system is favorable to the immediate discovery of difficult problems in production so that scientific research is provided with new research topics. The result is that scientific research promotes production and production develops scientific research, thereby shortening the scientific research-production cycle and accelerating the capability for change.

Fourth, the integrated system is itself a scientific and technological center in which the scientists and technicians of scientific research units, colleges and schools, and the first line of production are integrated with production units and administrative organizations, something which is both convenient for management and favorable for command. In brief, the scientific research-production integrated system can provide more science and more coordinated operations for comprehensive scientific research in agricultural modernization, and can unite conditions and forces for tackling key problems, thereby opening up a brand-new way to achieve agricultural modernization and accelerating the process of agricultural modernization.

The scientists and technicians of the Shijiazhuang Agricultural Modernization Research Institute under the Chinese Academy of Sciences, on the basis of facilities for agriculture introduced from Japan, selected and tested plastic sheds, designed the PGP series agricultural-use galvanized steel tube plastic shed suitable for the different climatic conditions in south and north China, and formed an integrated system with the Shijiazhuang Construction Machinery Factory to test-manufacture, produce, and market the sheds. By the end of 1982, 450 of these sheds had been sold in 18 provinces, municipalities and autonomous regions in China and had been attached to over 1,100 sets of environmental control installations. This integrated system both perfected the work of scientific research in designing and spreading this shed and helped the factory to reverse its loss situation so that in a little over one year its output value increased by 890,000 yuan. An agricultural modernization experimental base county, broadly speaking, is also a model, regional research unit and a county cooperative scientific research-production integrated system. The practice of over 4 years has shown: with the agricultural modernization

experimental base of Luancheng County as an example, through a concerted effort to cooperate with research institutes there was effected a close integration of comprehensive science and technology with the production links, which caused modern science and technology to display their powers to a fairly large degree and which greatly increased output, improved economic results, and improved the people's life.

The setting up of scientific research-production integrated systems is still a new thing, and it still requires the constant bringing forth of new ideas on the part of the great number of scientific researches, cadres, and masses so that it becomes more and more perfected.

9727
CSO: 4007/199

POSSIBILITY OF FLOODS IN PROVINCE THIS YEAR SEEN

Shijiazhuang HEBEI RIBAO in Chinese 14 Jun 83 p 2

[Article by You Jingyan [3266 2529 3508], senior engineer of the provincial Meterological Bureau: "Take Note of Abnormal Weather, Make Good Preparations for Flood Control"]

[Text] Recently, abnormal weather has frequently appeared in the world. In West Germany, river floods caused a disaster; America's Midwest was hit by storms and tornadoes; and Australia had a long period of sustained drought, which caused many conflagurations, after which heavy rains caused a disaster. The rainy season came early in southern China, and in some places the amount of rain exceeded that of a normal year by 4 to 5 times; in our province, in the last 10 days of April there were torrential rainstorms rarely seen since records began to be kept, and the daily amount of rain in six counties exceeded 100 mm, following which there were many rains in May that produced wet weather such as few springs had had.

The reason for the abnormal world weather since last year is mainly that since last autumn the water temperature in the Pacific Ocean began to change in an unusual fashion: the seawater of the eastern Pacific Ocean near South and North America had an abnormal sustained increase in warmth and its level rose, and the western Pacific Ocean along Asia turned colder and its level dropped. With this kind of phenomenon occurring for 12 months--the eastern and western edges of the Pacific rising and falling--a tilt of one meter in height was produced. This unusual change disordered the normal movement of atmospheric circulation, and therefore areas that had droughts under normal circumstances changed to areas of much rain and areas of much rain changed to areas of drought.

Since 1940, there have been nine unusual changes. The second summer after such a phenomenon occurred, there appeared two belts of much rain in eastern China: one was south of the Changjiang River and the other north of the Huanghe River. Our province is situated in the northern rainy belt, and there has tended to be much rain here.

Furthermore, an analysis of the amount of rain over many years shows that the 1950's and the initial part of the 1960's were a period of much rain; among which there were particularly big rainstorms, rarely seen, in 1963; and from the middle of the 1960's to the initial part of the 1980's there was relatively little rain, among which the period from 1980 to 1981 was one of continued little rain, producing serious droughts. Based on an analysis of the cycles, it is estimated that around 1984 there will be a change to a period of relatively more rain. From a look at the statistics, we see that our province has 3-, 6-, or 9-year periods in which there tends to be much rain in the flood season, and especially there is a somewhat greater probability for there to be the 3-year period in which there is much rain and a winter drought but no drought in the spring.

Summing up what has been said above, there is a possibility of much rain in our province in this year's flood season and consequent floods and waterlogging, so good preparations for flood control should be made. Historically, there have been periods of sustained heavy rain or drought turning to heavy rain, and also complex situations such as floods and waterlogging appearing after a year of drought or a little rain and drought appearing in a year of waterlogging. We must not, because there is favorable weather for a while, slacken our vigilance against unfavorable weather.

9727
CSO: 4007/199

COTTONFIELDS REQUIRE GOOD MANAGEMENT DURING BUSY SUMMER SEASON

Shijiazhuang HEBEI RIBAO in Chinese 16 Jun 83 p 2

[Article by staff commentator: "When Reaping Wheat Don't Forget To Manage Cotton"]

[Text] "If during the 'three summer jobs' [planting, harvesting, and field management] cotton is not managed, its harvest will be reduced by half." The "three summer jobs" period is the vigorous period for cotton when it takes root, adds leaves, extends it branches, and buds. In this period it is extremely important to strengthen the management of cottonfields so as to do all one can to create conditions suitable for the growth of cotton seedlings. Summing up the experiences and lessons over the years, while carefully reaping and threshing wheat, we certainly must scientifically arrange time and labor power for the timely management of cottonfields, so that neither the reaping of wheat nor the management of cotton suffers.

The basic standpoint in managing cottonfields well is to resist natural disasters and wrest a bumper harvest. This year the area of cottonfields in our province is large, but because there has been a lot of rain and low temperatures during the seedling stage, many cotton seedlings have seriously suffered from diseases; they are weak, their growth is slow, and they have not emerged evenly, all of which adversely affects the early development of sturdy seedlings. This requires us to get a tight grip on the crucial moment during the "three summer jobs" period when the growth of cotton seedlings is changing by strengthening management and promoting by all means the early development of sturdy seedlings, so that they have bolls attached to them when the hottest part of the summer begins. We must truly wipe out or control cotton aphids and bollworms, make good pest forecasts, and seize the opportune moment to control cotton aphids before the leaf roller stage and wipe out bollworms within their first three stages of growth. The most effective method of wiping out or controlling insect pests is for everybody to start simultaneously and wipe out or control them simultaneously. Therefore, after the big contract production responsibility system was put into practice, each production organization in the communes, production brigades and teams must still bear the organizational responsibility of commune members, unify their actions, concentrate their forces, and at the appropriate time wipe out or control the pests.

The chemicals and equipment for wiping out or controlling plant diseases and insect pests must be well prepared in advance; the commercial, supply and marketing, and transportation departments must, based on the requirements of the rural areas, timely supply, allocate and transport them, and they cannot miss the farming season. With regard to the supply of agricultural chemicals, especially those that are of high effectiveness and low toxicity, and are in short supply, there must be a rational distribution, and such unhealthy tendencies as "getting in by the back door" must be stopped.

There will probably be a lot of rain this year, and we must truly do good preparatory work to prevent waterlogging. Leaders at all levels must become deeply involved with the masses, do good ideological and political work, overcome benumbing ideas, encourage and develop taking the whole situation into consideration, have the communist style of seizing on difficulties and forgoing conveniences, organize the commune members to talk things over, rationally decide on drainage passages, rebuilt waterlogged field drainage projects, and rationally arrange that peasant households that received benefits shoulder some of the burden of peasant households that suffered losses because of the waterlogging.

Cotton production occupies an important position in our province's agriculture, and a bumper cotton harvest has important significance for the state's economic construction and for making the peasants of our province prosperous as quickly as possible. During the very busy "three summer jobs," we certainly must make overall plans and take all factors in consideration, and struggle hard to achieve year-round bumper grain and cotton harvests.

9727
CSO: 4007/199

OVERPROCUREMENT OF SUMMER WHEAT SURPLUS URGED

Shijiazhuang HEBEI RIBAO in Chinese 17 Jun 83 p 2

[Article by staff commentator: "Persist in Making Up for Poor Harvests in the Years of Rich Harvests, Work Hard To Buy a Little More Wheat"]

[Text] This year our province joyfully obtained a bumper wheat harvest, and from south to north reaping has already begun on a large area and the crops are being put on the market one after another. In order to do further good work in grain procurement, we must continue to insist on the principle of making up for poor harvests in the years of rich harvests; give consideration to the interests of the state, the collective, and the individual; work hard to buy a little more wheat; and overfulfill this summer's procurement task.

Our province is a grain-deficient province, and every year it needs some grain transferred from the state before it can balance its revenue and expenditure, and the contradiction between the production and demand of flour and rice is especially prominent. In 1980 our province suffered a serious drought disaster, and it wasn't until after the state had transferred a large batch of grain to us that the requirements of life for people in town and country were assured. And last year, a year of bumper harvests, because of a crop failure in the summer, the state transferred to our province a large batch of wheat. This year's bumper harvest of summer grain should educate the peasants to proceed from the interests of the overall situation by not forgetting to assist fraternal areas and by selling some more of their surplus grain to the state, so as to lessen the difference between the revenue and expenditure of wheat in our province, lighten the state's grain burden, and support the state's construction of the four modernizations.

Since last year, our province has been putting into effect a policy of task responsibility in buying and selling grain, which is fixed so that it will not change for 3 years. Insisting on task responsibility and on making up for poor harvests in years of rich harvest are a unity: The two things are interdependent and complement each other. Only by insisting on making up for poor harvests in years of rich harvests by purchasing more in the rich years and less in the poor years, calculating them as a unity for 3 years, and not changing the task responsibility policy will we

be able to uphold the enforcement of the task responsibility system and insure the comprehensive fulfillment of the tasks assigned. This year is the second year that the task responsibility policy has been in effect, and it is also the crucial year. The overpurchasing of some grain so as to seize the initiative next year will lay a good foundation for the comprehensive fulfillment of the tasks in this period of task responsibility. A common saying is: Look ahead and behind, make up for poor harvests in years of rich harvests, store up grain to prevent shortages, and in rich years don't forget poor years. Agricultural production, especially grain production, is still bound to a very great degree by natural conditions, and natural disasters have a very big effect on agricultural production. There was a bumper harvest this summer, but it is hard to predice what the harvests will be this autumn and next year. Therefore, we insist on making up for poor harvests in years of rich harvests, not only making up for past poor harvests but taking into consideration future poor harvests. Within one year, the levels of production as between different areas are unbalanced, the degree of the effect of natural disasters on them is different, and there exists a state of imbalance between the rich and the poor harvests. Therefore, the areas, communes, production brigades and teams that have bumper harvests certainly must establish the viewpooint of the overall situation, and when production increases not forget the state, when they prosper not forget other villages, and after completion of their procurement task sell some more surplus grain to the state.

The great number of peasants in our province have a fine tradition of turning over more and good grain to the state and of supporting national construction with practical actions. Grain departments in all places must fully appraise the masses' enthusiasm for turning over grain, adopt all sorts of effective measures, and satisfy by all ways and means the masses' demand to sell grain. Party and government leaders at all levels must strengthen their leadership over summer grain procurement work and do good work. It is fully possible to, and the conditions exist for, overpurchasing some more wheat.

9727
CSO: 4007/199

WATER CONSERVATION CRITICAL IN FARMING

Shijiazhuang HEBEI RIBAO in Chinese 14 Aug 83 p 1

[Article by staff commentator: "Agricultural Irrigation"]

[Text] Ours is one of the provinces with the least water resources. Currently not only is the conflict over lack of water for agriculture outstanding, but water for industry and for urban people's daily life is also in short supply. According to a preliminary calculation based on the current production situation of industry and agriculture (excluding water used in aquaculture, freight transport, environmental protection and dredging silted seaports), the entire province lacks 8.2 billion cubic meters of water in a normal year, and 16 billion cubic meters in a drought year. The shortage of water resources has become a more and more important limiting factor in the development of our national economy and the improvement of people's lifestyle.

Premier Zhao Ziyang recently pointed out: "To do farming irrigation, special attention has to be paid to the conservation of water," and "when water is conserved, it not only decreases the cost of water, but also expands the irrigated area. It is like construction of more irrigation works." To solve our province's conflict over lack of water, the most important thing besides continuing to tap resources, is to try in every way to conserve water. On viewing the current use of agricultural irrigation water, there still exists a serious waste of water. The entire province has 184 irrigation areas which are over 10,000 mu and channel 6 billion cubic meters of water. The average utilization ratio is only about 50 percent; about 30 percent of the water is wasted every year. There are some places where people draw off water from reservoirs for planting wheat, yet, due to the unevenness of land and leakage in the ditches, the wheat fields are flooded and cannot be used for planting because of the dampness. Also, there are places where people use large amounts of water and irrigate heavily in order to replace plowing with irrigation, thereby not only increasing the cost, but also affecting the output. There are irrigated areas where people irrigate only during the day and not at night, causing water to flow away to no purpose. There are places where, due to the inappropriateness of motor pumps for wells, the profitabiliy of motor-pumped well irrigation is very low. The water used in the entire province is generally 15 billion cubic meters. Estimated by deducting the 15 percent of water

that is wasted, in 1 year, 2.25 billion cubic meters of water could be saved, the equivalent of repairing 22 big reservoirs of 100 million cubic meters in storage capacity or building 280,000 motor-pumped wells. From this we can see the great potential of water conservation.

From the long-drawn battles against drought, people in our province have accumulated a wealth of experience in water conservation, e.g., leveling land, irrigating by small pieces of land; repairing irrigation ditches, preventing leakages through field ditches and decreasing leakage; concentrating water, irrigating day and night rotationally; tamping fields left unplowed after harvesting before irrigating them; practicing sprinkling irrigation, dripping irrigation and combining salt water with fresh water; rotating crops rationally, changing crops to store up moisture; strengthening management and taking best advantage of irrigation works, etc. These are all very effective measures for solving our province's problems concerning insufficient water resources, water conservation and the expansion of benefits.

Conservation is not simply an expedient measure, but a long-term strategic measure. We should, through setting up various kinds of water-conservation models, publicize the practical as well as profound historical significance of the conservation of water. We should not tap water resources blindly, but rather have unified planning and proper arrangements. We should be far-sighted and look for long-term benefits, thinking ahead 5, 10, 20 years, thinking for our children, grandchildren and their descendants. We should not be near-sighted and just care for immediate or partial benefits. Our province did not have much rain during the flood season this year and the underground water did not get enough replenishment either. Therefore, conservation of water makes special sense. No matter if they are in a place where there are good water resources or bad resources, all basic-level cadres and commune members and masses of the villages should treasure every single drop of water, and should make the water conservation a major event, pay close attention to it and get achievements out of it, thereby guaranteeing the water needed for planting wheat in the coming autumn and for fighting against drought next year.

12369
CSO: 4007/237

PROCUREMENT PROBLEMS IN AGRICULTURAL, SIDELINE PRODUCTS

Yinchuan NINGXIA RIBAO in Chinese 2 Jul 83 p 1

[Text] After the realization of the responsibility system in the villages, the number of people engaged in the production of sideline products is ever increasing, thereby promoting the development of commodity production. However, during the first quarter of this year, the total procurement value of the agricultural and sideline products of our areas decreased 160,000 yuan over the same period last year. Why? According to investigations, one of the reasons is that the sales incentive system has not adapted to the new situation, it remains in the stage of helping the peasants solve their clothing and food problems by awarding them clothing coupons and food coupons. Take for instance, the award of a 1-jin food coupon for 1 jin of eggs procured and the award of a 1-chi [1/3 meter] cloth coupon for one piece of sheepskin procured. Because the coupon awards are no longer welcomed by the peasants, some of the agricultural and sideline products within the state's procurement plan end up being bought by some individuals. Eggs are one of the most outstanding examples -- for 1 jin of eggs procured by the state, a peasant is paid 9 jiao and 3 fen and awarded a 1-jin food coupon; but when sold in the peasant trading market, the peasant can make 1 jiao and 7 fen more. Another reason is the "three shortages" -- shortage of procuring networks, little variety in the commodities procured and a shortage of procurement personnel. In the past, there was generally no procurement point in the sales department of the basic level supply and marketing cooperatives, and there was very little variety in the commodities procured. Currently, there are only two to three procurement networks in some basic level supply and marketing cooperatives, and some procure only fur. Other reasons are the impediments to the circulation of agricultural and sideline products. Some procurement units are afraid of purchasing certain agricultural and sideline products for fear that they might not be able to sell them and so end up overstocked. Straw bags and reed mats are two products that they fear to purchase. Regarding the above-mentioned problems, the following are some suggestions for concerned departments:

1. Reform the sales incentive system, and fully arouse peasant enthusiasm to sell their agricultural and sideline products to the state. At present, the movement of peasant funds has changed significantly. "Utilization" has been put in first place. Especially true is that the peasants are willing to spend their money on what is needed for production. If the awards of food and cloth

coupons can be changed to the award of chemical fertilizer and industrial products in tight supply, peasant enthusiasm for selling their agricultural and sideline products to the state will certainly be greatly aroused.

2. Increase the number of procurement networks in the villages. Unoccupied and surplus labor can also be organized to do individual procurement. Train the procurement personnel, raise their level of business skills and carry out pricing policies correctly.

3. Make good market forecasts, give timely reports of economic messages to the peasants, and open up the circulation channel for agricultural and sideline products. The concerned departments should encourage business departments to purchase and store products needed in the markets, and to purchase and store agricultural and sideline products which are temporarily in oversupply for urgent needs or for the opening up of new markets.

12369
CSO: 4007/215

BUMPER WHEAT HARVEST EXPECTED IN YINHUANG IRRIGATION AREA

Yinchuan NINGXIA RIBAO in Chinese 4 Jul 83 p 1

[Article: "Popularization of Scientific Techniques Conquer Unfavorable Climate, Warning Against Slacking Off and Striving To Get Bumper Crop and Bumper Harvest"]

[Text] The commune members in our Yinhuang irrigation area are all greatly delighted and very jubilant because of the more than 1.5 million mu bumper wheat harvest in sight.

In the first half of this year, we experienced a series of unfavorable weather developments -- during the wheat-sowing season we experienced some low temperatures which caused delay of sowing in some parts of the area, then after sowing we experienced the "February rain," in April low temperatures again, and sandstorms all of which affected the emerging, earing and milking of wheat. However, the party's policy aroused the commune members' enthusiasm and resulted in gigantic efforts to conquer difficulties. During the spring sowing period, the entire irrigation area used 150,000 tons of chemical fertilizer, an increase of 40,000 tons over last year. The sowing area increased 19,000 mu over last year. The wide utilization and popularization of new techniques is the most significant characteristic of the course of this year's wheat production, and an important reason for our being able to conquer the unfavorable factors. The percentage of the growing area planted in "Ningchun No 4" (formerly named "Yungliang No 4") out of the total wheat growing area has reached 43 percent. In order to help the commune members to grow the wheat well, the agricultural technical department delivers science and technology right to them in many ways. The number of technical wheat production households, priority households and households specializing in the propagation of good varieties increased in large numbers over last year. Scientific, research and teaching units such as the District Academy of Agricultural Sciences and agricultural colleges all set up experimental demonstration points for testing the wheat. The agricultural technicians of suburban Shizuishan, Wuzhong and Pingluo even had technical contracts with the peasants implementing the practice of taking a part of excess production while paying compensation if production went down.

In addition, fields of medium and low yields are gradually being transformed. The Zhengtai Brigade of Yungning County's Tongqiao Commune, improve on their originally low yields by means of popularization of good varieties and by adapting policies of good liquid fertilizer management will have an output no lower than last year despite the unfavorable weather. The Jiaolung Brigade of western suburban Shizuishan's Yunggu Commune and Liuqingdi First and Second Brigade of Taole County's Mataigou Commune are also improving on their medium and low yields.

Currently, the wheat in the irrigation area has already entered the latter milking stage. Everywhere you can hear warnings not to slack off and to manage the latter stage of the wheat fields well, to make good preparations for the summer harvest and to strive for a bumper wheat harvest.

12369
CSO: 4007/215

STATE URGED TO GIVE NON-GRAIN AWARDS FOR PEASANTS' SALES

Beijing RENMIN RIBAO in Chinese 29 Jun 83 p 8

[Article by Gao Zhijiang [7559 0037 3068] of the Yanta District Grain Bureau in Xi'an City, Shaanxi, in the "Probe and Research" column: "The Method of Awards for Sales of Agricultural Products Needs To Be Improved"]

[Text] In the state's purchase of agricultural and sideline products, awarding to the peasants goods and materials for their sales plays a definite role in arousing the peasants' enthusiasm for production and for selling agricultural and sideline products to the state. Without a doubt, in places where there is a shortage of grain, the peasants welcome the sales award of a definite amount of grain; the peasants even more welcome the aware of a definite amount of chemical fertilizers or industrial products in great demand. In the present circumstances in which agricultural and sideline products are not very plentiful, it is still necessary to continue to practice the sales award method. However, how to award sales and what goods and materials to award are questions worthy of study in the current work of giving awards for the sale of agricultural and sideline products.

The rural areas are now universally practicing the responsibility system linking remuneration to output. Grain production has been markedly developed, and after the peasants have fulfilled their quota of sales to the state they usually have ample and surplus grain rations. Under these new circumstances, the peasants do not very much welcome the state's continuing to award grain for the agricultural and sideline products that it purchases from the peasants. A fairly large part of the grain awarded to the peasants is conveniently sold by them to grain distribution stations in replacement of state grain purchase quotas, or sold as above-purchase grain or purchasing agent grain; some of the award grain is bought back and after a period of time is again sold to the state or taken to market and sold. In many areas, because the granary stage capacity of the grain distribution stations is inadequate, there has appeared the problem of "grain being difficult to sell." To award the peasants with grain purchased from the rural areas, and then have the peasants turn around and sell it to the state, forms a backward flow of grain, is circuitous, and is truly a waste of money and manpower. In 35 cotton-growing counties (prefectures) on the Guangzhong Plain in Shaanxi Province, the

1-year total of turned-back grain was 460 million jin. With the exception of 120 million jin from which 60 million jin of urea was extracted, the net amount sold to the cotton growers was 340 million jin, amounting to about 14 percent of the grain purchased in the province in 1 year. If award grain for the state's purchase of pigs and other agricultural and sideline products is included in the calculation, this number would be greater.

In most places where the peasants no longer are short of grain and their economic income has been raised fairly much, what they welcome is urea chemical fertilizer and other means of production and light industry products in big demand. Awarding industrial products to peasants for selling agricultural and sideline products to the state is more in accord with the actual circumstances in most rural areas and with the peasants' needs, and also conforms to the laws of material and goods exchange between town and country. If in these grain-surplus areas, the state will change from awarding grain for its purchase of agricultural and sideline products to awarding daily-use products and means of agricultural production, this alone will greatly increase the state's grain reserve and thus reduce the import of grain. Wouldn't we kill two birds with one stone by using the amount of money saved in this way on more urgently needed construction projects?

9727
CSO: 4007/197

ON THIS YEAR'S AUTUMN SOWING WORK

Jinan DAZHONG RIBAO in Chinese 13 Aug 83 p 1

[Text] "The Beginning of Autumn," the 13th solar term has passed, and the three busy autumn jobs [harvesting, plowing and sowing] are within sight. Many new situations and characteristics lie ahead of this year's autumn sowing. In the first place, because of this summer's general drought, the autumn crops of some places were planted later and had to be harvested later, therefore harvesting and sowing will probably have to be crisscrossed, thereby increasing the time pressure during autumn sowing. Second, due to year after year of drought, the soil moisture content is very poor, the water resources are scanty, many places will probably have to fight against drought to sow, which means a lot of trouble in the autumn sowing work. Third, with the practice of the remuneration according to household contract responsibility system as the main form of responsibility system, good organization and arrangement of water resources, machinery, fertilizer and popularization of farming techniques will be needed during the autumn sowing, which means relatively more work for the autumn sowing. Fourth, the entire province had a bumper wheat harvest this year, with the per unit and total yield setting a historic high, to make still further progress next year will require more effort. We should lay a good groundwork at the very beginning in order to keep up the good progressive impetus.

Confronted with these new situations and characteristics, we have to fully recognize the importance of doing the autumn sowing work well, and resolve to plant the wheat in the proper density and plant it well. Wheat is one of the important grain crops in our province, both its planting area and output make up about 40 percent of the annual grain crop area and output. Due to its long growth period which gives it more time to adjust, not only can wheat produce a high and stable yield, but it is also high in economic value and in marketability ratio, and it makes up over 60 percent of the province's grain crops procured every year. Therefore, to manage wheat production well has the important function of improving the development of the national economy, improving people's lifestyle and guaranteeing supply for the cities and villages. It is very true that, with the development of various kinds of businesses and the improvement of people's lifestyle, there will be more and more demand for wheat. We must set out from the overall and long-term interest, conscientiously summarizing our historical experiences, fully utilizing all favorable conditions, taking advantage of every potentiality, making the vigorous development of wheat production the strategy to solve our province's grain problem. Close attention should be paid to this.

To do the autumn sowing well and develop wheat production, besides striving to raise the per unit yield, we must have a fixed area as a guarantee. This is an important factor in increasing wheat output. In recent years, there are some places where people restructure their cropping system, practice intercropping and interplanting, especially intercropping of wheat and cotton, of wheat and rape which make full use of soil fertility and light conditions and attain very good results. We should conscientiously summarize and popularize these kinds of experiences. This year we have a plan to plant 56 million mu of wheat in the entire province, people everywhere should conscientiously pay close attention to every step and make sure to grow it in the proper density and grow it well. Where conditions allow, we should try to grow as much wheat as possible in order to prepare for the struggle for a bumper harvest next year.

To do the autumn sowing well and to develop wheat production, we have to rely on policies as well as science. In order to provoke the peasants' enthusiasm in grain production, the provincial government has formulated the policy of linking grain and fertilizer, the policy of linking grain and oil to award chemical fertilizer and diesel oil to peasants for selling their grain. This policy should be carried out conscientiously and thoroughly everywhere and honoring of this commitment must be guaranteed to the households. Close attention should be paid to technical training work. Stress should be placed on bringing into play the capabilities of various kinds of qualified technicians, and scientific knowledge should be popularized in order to raise the level of scientific farming. It is especially important that we should suit measures to local conditions, apply fertilizer scientifically, plant rationally, avoid overclose planting without considering applicable conditions which will result in decreased production. Currently there still exists a great disequilibrium in our province's wheat production which has a great potential for increasing production. High-yield areas and units should increase policies of technical management and strive for breakthroughs both in per unit and total yield. Medium- and low-yield areas and units need to improve their policies even more, strive to improve the condition of the water, fertilizer and soil in order to enrich soil fertility and speed up the steps from medium and low yield to high yield. Places where there is no irrigation should follow the route of organic dry crop agriculture, do the preparation and improvement of soil well, break the habit of surface plowing and replace it with deep plowing and deep turning, retain water and moisture in the soil, apply base fertilizer heavily, plant early at the proper time, cultivate healthy seedlings and work on the improvement of per unit yield.

There is only a little more than a month left between now and the autumn sowing. The task is heavy and the time limited. In every area, every department and every village, cadres and commune members should act promptly, enthusiastically making good preparation for the autumn sowing and fight together to grow the wheat in the proper density and well, to strive for a bumper harvest next year and to support the construction of the four modernizations.

12369
CSO: 4007/237

PROPORTIONAL PRICE RISE IN COTTON PROCUREMENT

Jinan DAZHONG RIBAO in Chinese 1 Sep 83 p 1

[Text] Shandong's new cotton is on its way to market now, and some localities are opening their scales to weigh cotton for procurement. The State Council has decided that starting with the new cotton on the market this year, 30 percent of the procurement will be at the list price and 70 percent at a higher price due to proportional increase.

At the recent Provincial Cotton Procurement Work Conference at Yuncheng, called by Shandong's supply and marketing cooperatives, there was discussion of proportional price increases in cotton procurement. Participating comrades unanimously felt that this method has the following advantages. First, it resolves the great disparity between the base contract procurement figures from new cotton areas and those from old cotton areas, as well as the contradiction of uneven distribution of income from cotton sold for clothing. Second, with proportional price increases, prices go up as procurements are made, accounts are settled with whomever sells the cotton, payments are drawn after the cotton is sold for clothing, the phenomenon of some communes and brigades arbitrarily detaining and embezzling the additional funds brought in by higher prices has been abolished, and never again will there be the problem of a whole brigade not getting a higher price because one of its households did not fulfill its base contract procurement figure. Third, proportional price increases can guard against some people's evasion of base contract procurement figures by conspiring with brigades and households to sell to the state and against illegal seizure of the additional funds brought in by higher prices. The increases thus plug loopholes, reduce the extent of price hikes and cut outlays that the state should not have. Four, proportional price increases simplify the formalities of settling accounts, ease the intensity of accounting personnel's labor and raise work efficiency.

The Provincial Cotton Procurement Work Conference demanded that organizational work in cotton procurement be done earnestly everywhere. As for the time when appointments are made to sell cotton for clothing, it should be divided into morning and afternoon, with 1 or 2 days' notice to households. Thus sales would occur at the appointed time and place, and all the cotton sold on a particular day would be collected then, too. In procurement, we must stress the link of settling accounts, one account book per brigade, one card per page of accounts per household. When paying for cotton, buyers from clothing

firms must pay cash on demand and transfer accounts on demand. Procurement units do not deduct funds for any department or unit except when acting as proxy in collection of agricultural tax and in recalling deposits for advance purchases. Incentives to sell grain, fertilizer and the exchange of oil, cakes and hides must be made good to households according to policy.

12570
CSO: 4007/252

URGENT NEED TO CORRECT CHEMICAL FERTILIZER DISTRIBUTION

Taiyuan SHANXI RIBAO in Chinese 28 Aug 83 p 1

[Text] Editor's Note: In the first half of this year in Shanxi, leading comrades and departments ordered too much chemical fertilizer outside the plan, thus damaging the state plan. As a result, the distribution of chemical fertilizer is universally uneven, will certainly affect production, and will foster unhealthy social tendencies, even to the point of giving speculators a chance to make trouble and disturb the market. Speculators will also interfere with the regular work of administrative units and artificially exacerbate the already short supply of chemical fertilizer.

We should note that problems like this also exist now to different degrees in the distribution and supply of other goods in somewhat great demand. It is necessary to take resolute measures against the damage to the state plan and against the unhealthy tendencies affecting the people's production and lives. We must resolutely control the situation so as to ensure a regular supply of all materials for production and domestic needs and to promote further improvement of party practice and the general mood of society.

From pertinent sources this reporter has learned that in the first half of this year in Shanxi, some leading comrades and departments ordered too much chemical fertilizer outside the plan. They have thus affected the implementation of the state plan for distributing chemical fertilizer, given administrative departments much difficulty and also fostered unhealthy tendencies.

This year the plan calls for Shanxi to have a supply of 430,000 metric tons of nitrogenous fertilizer, 18,000 of which are for industry. The Provincial Agricultural Means of Production Co is responsible for providing the remainder. The plan calls for 335,000 metric tons for the cities and the countryside and 77,000 for special projects. The fertilizer supplied according to plan from January to June was 167,000 metric tons, only 45 [sic] percent of the annual plan, but 136,000 metric tons (33 percent of the annual plan's 412,000 metric tons) were irregularly ordered through every channel. This amount

greatly exceeds the 50,000 metric tons budgeted in reserve by the plan for special disaster relief.

These abnormal phenomena in the distribution and supply of chemical fertilizer present the following problems:

1. Serious damage to the state plan, making impossible the fulfillment of the annual plan by the provincial government's lower levels. The nitrogenous fertilizer supplied by the Agricultural Means of Production Co in the first half of this year fulfilled only 45 percent of the annual plan, which calls for 245,000 metric tons to be supplied in the second half. But within the plan, only 109,000 metric tons remain that can be supplied in the second half. Including the 80,000 metric tons supplied by the state in the second half of the year, the total is still only 189,000 metric tons, 56,000 fewer than what it should be.

2. Considerable trouble for the work of administrative units. Because of many irregular orders, most of which come from above, administrative units cannot hold out. Consequently, they cannot do things in order of importance and urgency, make unified plans and take every factor into consideration, and provide supplies in a timely fashion in accordance with the needs of the agricultural season. Thus gains from the use of chemical fertilizer have declined.

3. Abetment of unhealthy tendencies and creation of universally uneven distribution. It is understood that quite a few counties and basic-level communes and brigades that seek wholesale supplies place duplicate orders for chemical fertilizer because they have adopted the method of multiple connections. Units with many connections that make inquiries diligently place many orders; units with few connections that make few inquiries place few orders. Thus, we have both abetment of unhealthy tendencies in society and creation of universally uneven distribution and artificial exacerbation of the already short supply of chemical fertilizer.

It is particularly worthy of attention that so far orders from everywhere are increasing, not declining. Old ones remain unfilled while new ones pour in constantly. If decisive measures are not taken to stop this at once, the gap in the planned supply of chemical fertilizer will grow bigger and bigger.

12570
CSO: 4007/252

COMMUNE INCREASES CONTRACTS FOR HARNESSING SMALL RIVER BASINS

Taiyaun SHANXI RIBAO in Chinese 16 Jun 83 p 2

[Article by the CPC Committee and Management Committee of Jiuxian Commune, Hequ County: "Conscientiously Solve Actual Problems in Contracting the Harnessing of Small River Basins"]

[Text] Miao Hunman's [5379 3236 4221] specialized household in our commune was the first one in the province to be contracted for harnessing small river basins. In order to populraize his experience, we adopted some measures, but by the second half of last year, only 43 households of commune members in the communc had contracted for 37 river basins, being only 4.3 percent of the households that should have contracted for them and only 10 percent of the drainage ditches that should be harnessed. Where was the obstruction? Besides the fact that there was among the masses the idea of fearing change, the main obstruction blocking the way was that some actual problems had not been solved. In the main these problems were:

1. The masses worried that their immediate interests were not guaranteed. Even though we repeatedly publicized typical cases in which Miao Hunman's long-term interests were attainable and his immediate interests were secured, some of the masses still, because of the past circumstances in which there was a loud exhortation to engage in capital construction, thought there were problems, and felt that if they were to engage in long-term construction they would not at the same time be able to give consideration to their immediate interests. The rural masses, who are in a period of just reviving their economy, have even more pressing demands for their immediate interests. Our commune has the "black" (coal) and the "yellow" (sulfur) and wants to secure its immediate interests, and feels that contracting to harness small river basins is not as good as getting a grip on these things.

2. In selecting the small river basins, the masses "pick the fat or choose the lean"--choosing whatever is to one's personal advantage--and they refuse to give up the "fat" ditches while nobody cares to ask about the "lean" ditches. "Fat" and "lean" ditches exist objectively, and from looking at the past situation in the country's communes, there are few "fat" ditches and many "lean" ditches. Looking at the significance of water preservation and exploitation of natural resources, there is value

in harnessing both "fat" ditches and "lean" ditches, but looking at the benefits to be derived from investment in labor and funds there is a very big gap between "fat" ditches and "lean" ditches. For example, the Xiaowang Jiaye Production Brigade has nine ditches that should be contracted for, and among them the Sichang Ditch, which is fairly "fat," is coveted by people. Last year, because the contradiction between "fat" and "lean" ditches was not resolved, for half a year not a single ditch was contracted for.

3. There is much "top candidate" land and adjustment is difficult, something which has an adverse effect on contracting. The over 5,200 mu of cultivated land on more than 30 du in the commune is distributed into 220 strips of barren ditches, barren hills, and barren slopes. Formerly, when putting into effect wetland contracts and implementing the forestry policy, we only had to find the "three fields" (private plots, ration plots, and responsibility plots) and issure the "three certificates" (tree rights certificates, forest rights certificates, and suitable forest and land utilization certificates), and in all cases we did not consider making small river basins the unit for harnessing, so tha area of "top candidate" land was very large. The contradication now is that the "three fields" and "three certificates" need to be stabilized, especially the issuance of the "three certificates," which in themselves were supposed to resolve the masses' idea of fearing change. But if we were to make contracts with a river basin as the unit, unless there were a readjustment this could not be done.

4. Among the masses there exists the idea that small river basins should be equally distributed to the households. Last year, just as the time contracts were being made, there were many people in the commune who signed up for them, and we felt very happy. However, when we carefully delved into the matter we discovered that among them were handicraftsmen, drivers, teachers at people-run schools, and also "five guarantee" households and "four dependent households" without labor power. The masses said that these people "took at the time of the contract and looked after the contract was made." When we asked them what their reason was, they said: "When the village land was divided up, the barren ditches should have also been divided up. When my children grow up, they won't have enough land to chop two whipstocks on. Each boy the father raised should have his share." The harnessing of small river basins is related to the personal interests of many people in the mountain area, and it requires that many people be mobilized to make painstaking efforts. That people leaped up to sign contracts was a good thing, but to make small river basins a legacy to be equally divided up by the households is something that, looking at the number of small river basins and the social division of work in production, cannot and should not be done. How are good contracting households to be selected and the masses persuaded? This not only relates to the quality of the harnessing in the future, but also directly relates to the question of whether the contracts are successfully carried out.

With regard to how to understand and solve these problems, some people have not thought of some simple methods. For example, making "light vows" (with regard to the immediate interests of the contracting households), forcibly readjusting the "top candidate" land, and grasping the "paper egg" (the contradiction of readjusting "fat" and "lean" fields). After repeated discussions, we came to the conclusion that these methods could be effective for a time but that they would not fundamentally solve the problems. To solve them we must persist in seeking truth from facts and make the solutions fair and reasonable.

We should handle well the relationship between immediate interests and long-term interests, and insure that the contracting households suffer no loss of their immediate interests. Some people oversimply censured the masses' demand for their immediate interests as selfish and short-signted. We think their demand is reasonable and should be acknowledged and satisfied. In this respect our guiding idea is always to make short-term interests primary, to cultivate strong points to make up for shortcomings, and to make self-reliance our standpoint. In the contracts we not only formulated terms for long-range construction but also in particular guaranteed immediate interests. There are seven specific methods. 1. All the arable land within the small river basins goes along with the small river basins, and is to be cultivated by the contracting households. During the harnessing period, if the forest and grass are growing normally, the contracting households are permitted to engage in mixed cultivation of grain and economic crops and all income will be turned over to them. 3. During the harnessing period, the contracting households will not have to undertake land leveling work for capital construction. 4. During the small river basin harnessing period, with regard to the planned seed-growing land, the commune and production brigades will have exclusive selling rights for the remainder of the nursery stock after the contracting households have supplied themselves. 5. During the harnessing period, for 10 years there will be no planning of output, levying of taxes, or retention of crops on the land around the newly built dams, and the profits will go to the contracting households. 6. For all small river basins on which the state and the collective have a part investment, after they receive their profits, the proportion of the profits divided up is 37:28:19, with the major share going to the individual. 7. All the profits from the harnessing of all small river basins for which there was no state financial aid go to the contracting households.

Resolve the contradiction of "fat" and "lean" ditches. When discussing methods for solving this problem, there were big divergencies of opinion among the comrades. Some tried to force a solution by criticizing equalitarianism, with the result that not only was there no desired effect reached but, on the contrary, antagonistic feelings were stirred up. The commune came to the conclusion that there really existed the problem of labor not squaring with remuneration between "fat" or "lean" ditches, and that the amount of labor expanded and the remuneration derived therefrom did not tally with each other. That the masses would pick the "fat" from the "lean" was entirely reasonable and not at all strange. In this regard, the commune's methods were: for "lean" ditches the number of years for

completing the harnessing was appropriately lengthened; and with regard to investment, for the "fat" ditches there was less financial aid given and more self raising of funds, and for the "lean" ditches there was more financial aid and less self-raised funds. With regard to land readjustment and the system of fixed quotas for grain production, the the land contracted out in "fat" ditches is less and the output quotas are higher, and the land contracted out in "lean" ditches is more and the output quotas are lower, and consideration is also given to the division of the grain produced. With regard to the harnessing standards, out of consideration for the greater difficulty involved with "lean" ditches, the standards for them are set lower. In this way, the "fat" ditches will draw benefits, so that the "fat" makes up for the "lean." The result was that the 30 "fat" ditches in the commune were contracted for, and the 278 "lean" ditches were also successfully contracted for. In the main those who contracted for the "fat" ditches were satisfied and those who contracted for the "lean" ditches were happy.

Solve the problem of "top candidate" land. The commune's guiding idea was that land must be readjusted in line with the requirements for harnessing small river basins, while not causing the masses to mistakenly think that the policy had changed again. The specific method is that the land follows the ditch and the trees go with the land. There is a lot of land in the river basins, and the households that have the capacity to contract for land will contract for land nearby, thereby avoiding more readjustment of the land. Where there is more land in a river basin, the system of fixing quotas based on grain production will apply to the ration standards of the contracting household, under which all the land contracted for by the household will be withdrawn and replaced with land readjusted to the household's former production figures. If the amount of land is insufficient, reserve land is drawn on to fill the gap. If the amount of land is still insufficient, contract quota grain can be used in replacement. In practice, we persisted in persuasion and education, democratic consultation, and voluntary mutual benefit, and since last year the commune has readjusted a total of 786 mu of "top candidate" land on which trees were evaluated at 245,000 yuan. Because the work was fairly painstaking, there were no sequelae.

Solve the problem of all households wanting contracts. In contracting for the harnessing of small river basins, we had to study the experiences in contracting out land and insist on contracting according to capability. To this end, we first attained a rough balance of benefits to be received by all trades and professions. This balance was achieved by making a detailed contract of the labor and funds invested and the benefits obtained by the ditches and between the ditches. Next, we let each production team firmly grasp two rights: one was the right of possession and the other was the right to punish. Whoever did not do things according to the contract had his land taken back by the production team or was made to pay compensation. This corrected the misunderstanding among the masses about their descendants' contending for shares of their legacies. In choosing households to contract for harnessing small river basins, we have three

conditions: 1) true diligence; 2) enthusiasm for tackling mountains and rivers; and 3) possession of labor power and a certain amount of funds. The result was that of the 1,879 households in the commune, we made contracts with 308.

By solving these actual problems and then conscientiously implementing measures in other aspects, in a short while we opened up a new situation in contracting out small river basins to households. This year the total area under contracts sharply increased from last year's 5,800 mu to 28,900 mu. With their contracts to harness the small river basins, the people one after another built dams, dug check dams, built water conservancy projects and leveled steps, and planted grass and trees. With an investment of 17,000 work units nad over 24,000 yuan, the harnessed area rose from 210 mu to 2,680 mu, equal to 12 times last year's area.

9727
CSO: 4007/201

WEATHER STATIONS FOCUS ON SERVING AGRICULTURE

Taiyuan SHANXI RIBAO in Chinese 14 Jun 83 p 1

[Article by the Communications Section of the Shanxi Provincial Meterological Bureau: "Launching a Wide-Scale Meterological Service With Agriculture as the Key Factor"]

[Text] In the first 5 months of this year, the meterological departments of our province did better meterological service work than in previous years.

Focusing on the unusual climatic conditions this year, the provincial meterological Bureau has truly strengthened its leadership over disaster weather forecast work, and at an early date had made ideological and organizational preparations. The vast number of meterological personnel have stood fast at their posts; kept a close watch over the appearance of sudden-changing weather and small- and medium-scale disaster weather; given full play to the role of satellite cloud photographs, meterological radar, weather map facimiles, and other advanced equipment; and vigorously made short-term disaster weather forecasts. Through the holding of a conference of the radar section network, they also formed a joint defense network of seven rain-measuring radar sections, thereby improving their ability to keep a watch on disaster weather and transmit information. All prefectures (cities) and the vast number of meterological stations have made specific arrangements for the implementation of nine measures that integrate with local reality. Yanbei, Luliang, Yuncheng, and Jindongnan prefectures also separately held a joint defense coordination meeting at the Piling District Station. The Hunyuan, Jiaocheng, and Fenyang stations have put in order relevant forecast charts and equipment, strengthened their agricultural meterology forecast service, and made a point of garnering service results by solid, painstaking measures. The meterological stations in Houma city and Fanshi County have signed service contracts with key service units in the city proper and specialized households in rural communes and production teams to timely put weather forecasts in the hands of consumers. In their spring meterological service, for the most part meterological stations throughout the province accurately forecast the spring's first downpour and the 10-mm rainfall, and their forecasts os spring weather trends were also fairly good. The Shanxi Provincial Meterological Station and the Taiyuan City Meterological Station also

accurately forecast the strong winds and falling temperatures. Qingxu County and the southern and northern suburbs of Taiyuan city, after listening to the forecasts took timely reinforcement measures to supplement, cover, hold down, and roof plastic sheds and greenhouses, and took measures in fields to guard against wind and frost, thereby reducing losses in vegetable production. Because the Taiyuan City Power Supply Bureau took measures in its circuit work area before the high winds came, this year's losses were 610,000 yuan less than those of last year.

Now, the vast number of personnel at the meterological stations are keeping a close watch on weather changes and further surveying historical weather charts and data. They are also vigorously studying all sorts of disaster weather activity and the damage that could occur in the flood season, familiarizing themselves with the situational background before storms, hail, and other disaster weather occurs, and making full preparations in order to do all they can to make new contributions to the wrestling of a bumper wheat harvest and to flood prevention and disaster resistance.

9727
CSO: 4007/201

COMMENTARY ON DEVELOPMENT OF COMMODITY GRAIN SPECIALIZED HOUSEHOLDS

Taiyuan SHANXI RIBAO in Chinese 15 Jun 83 p 1

[Article by staff commentator: "The Development of Commodity Grain Specialized Households Must Be Well Led"]

[Text] A commodity grain specialized household is developed on the basis of a diversified economy specialized household, and is a new thing that has emerged in the rural areas. Because it is comparatively suited to the present level of development of our country's agricultural production forces, although it has not been in existence for long, its development has beey very fast. There are now over 200,000 commodity grain specialized households in our province, or 4 percent of the total number of peasant households in the province. From the look of thigs now, a fairly big development of them is possible in this year and the next 2 years. If the number of commodity grain specialized households can reach 10 to 15 percent of the total number of peasant households, then the commodity grain they will supply can insure the fulfillment of the grain purchase quotas set by the state for the province. This will be of important significance for resolving the grain requirements for the construction in our province of coal, heavy industry, and chemical industry bases, and for pomroting self-sufficiency or semi-self sufficiency in the province's agriculture and a change to commodity production, and a change from traditional agriculture to modern agriculture.

Today's report in this newspaper of news about Xiangyuan County's vigorous development of commodity grain bases shows: provided party committees, governments, and relevant departments at all levels give proper guidance and efficient help, this goal is attainable. Now everybody's enthusiasm for developing commodity grain specialized households is very high, and in various places development targets have been set in line with local conditions and many measures have been taken. However, we certainly must keep a clear head and draw lessons from history, and we must not become feverish, seek only forms, and knock numbers together. We certainly must respect objective laws and the peasants' wishes; patiently, vigorously, and safely develop these households; and be sure not to again stupidly spoil things by excessive enthusiasm. Of course, taking a passive, indifferent attitude toward the development of commodity grain specialized households is equally incorrect.

Development of agricultural production is inseparable from the coordinated development of each department. Socializing agriculture and freeing it from the state of the natural economy puts higher demands on each department of society. Looking at agriculture from the angle of systems engineering, its subsystems (each department) must maintain their coordination and balance and must work in synchronism. Any fault in a subsystem will affect the development of the entire system. The development of commodity grain specialized households requires the coordination and cooperation of the seed, water conservancy, plant protection, agricultural machinery, and scientific and technological departments. It will not do to not have this kind of three dimensional type coordination and cooperation and to rely solely on the strength of the peasants themselves. Why has Xiangyuan County developed commodity grain specialized households comparatively quickly? One very important reason is that the county mobilized the forces of the entire society and organized each department to give vigorous aid in each aspect to the development of commodity grain specialized households.

A commodity grain specialized household is a new thing, and in the course of its development it will encounter some difficulties, e.g., the problem of land readjustment and the problem of unbalanced income, etc. These problems require that we get deeply involved in investigation and study and that we solve them in the spirit of seeking truth from facts. In brief, provided we adopt a positive, circumspect attitude and constantly sum up the creations of the masses and their new experiences, we certainly can propel forward even better the new situation already created in the rural areas.

9727
CSO: 4007/200

AGRICULTURAL STATISTICAL WORK TO BE RESTRUCTURED

Taiyuan SHANXI RIBAO in Chinese 7 Aug 83 p 1

[Text] Shanxi Provincial CPC Committee and Provincial Government, in order to adapt to the new situation in which the remuneration according to contract responsibility system is commonly practiced in the villages, and to make better use of the potential of statistical work, decided recently to further strengthen and restructure agricultural statistical work.

The decision pointed out that ever since the 3d Plenary Session of the 11th CPC Central Committee, the party has greatly adjusted the production relations of the villages, and a big change has occurred in the social economy of the villages as a whole. Yet because there was no corresponding restructuring made in agricultural statistical work to adjust to the village situation which has changed drastically, the incorrect and delayed statistical figures of part of the development of village social economy have impeded the party's and government's leadership task. For this reason, agricultural statistical work must be restructured. The general requirements for the restructuring are: Centering on the improvement of the accuracy and timeliness of statistical figures on agricultural output and peasant income, enthusiastically and comprehensively restructuring statistical work, vigorously developing the sampling-survey method with the assistance of various kinds of survey methods, thereby guaranteeing the uniformity of goals by means of a multiplicity of methods. The decision also put forth practical restructuring suggestions for the survey and statistical methods of foodgrain output, peasant income and other agricultural statistics, stressing the scientific nature and superiority of the sampling-survey method. At the same time, the decision also requested that conscientious restructuring and special attention be paid to overall statistical methods, so as to satisfy the basic needs of various levels and various departments for comprehensive statistical figures. In accordance with the decision, statistical resources at the provincial, county and commune levels will be vigorously strengthened, and a Shanxi Provincial Village Social Economy Survey Team will be formed to do the organizational unification work and to lead the entire province's agricultural statistical work, so as to guarantee the successful realization of the restructuring work.

12369
CSO: 4007/237

NEW LESSON FOR AGRICULTURAL STATISTICS

Taiyuan SHANXI RIBAO in Chinese 7 Aug 83 p 1

[Text] Statistics is a superstructure for serving the economic base. When the economic base adjusts, the superstructure should restructure accordingly. Every since the remuneration according to contract responsibility system has been commonly practiced in the villages, a series of new situation have appeared in the course of agricultural statistical work: First, the change in the statistical objects, from the collectives in the past to hundreds of thousands of households; second, the change from investigations stressing collective production and distribution to those stressing peasant households' total output, consumption, income and expenditures; third, the change of statistical method, from depending mainly on accountings of production brigades, to directly investigating the peasant households to get the main information. In order to adapt to these changes, work has been done to strengthen and restructure statistical work everywhere, and has obtained some results. Yet, compared to the circumstances which are developing rapidly and the restructuring which is called for, the statistical work is still far from being adjusted, thereby causing problems for the various levels of party and political leaders and concerned departments in arranging production and construction and guidance work. Therefore, to conscientiously strengthen and enthusiastically restructure agricultural statistics is a task which demands immediate attention.

The core of strengthening and restructuring agricultural statistics is to improve the accuracy and timeliness of figures for agricultural output and peasant income. Taking the current situation into consideration, the best way to do it is to vigorously develop the sampling-survey method which is characterized by its economy, rapidity and accuracy. It can in a timely manner, attain more accurate survey statistical data with less manpower and material. Therefore, we should conscientiously summarize and popularize sampling survey experiences, make it an important aspect in improving the accuracy and timeliness of agricultural statistics and pay close attention to it.

Various levels of party committees and government should conscientiously strengthen their leading role in statistical work. Agricultural statistical personnel should fully recognize the importance of their job, bestir themselves and work hard, continuously studying new situations and solve new problems in order to make new contributions to the developments of the new agricultural situation which has already been created.

12369
CSO: 4007/237

RESEARCH SHOWS SHARP INCREASE IN PEASANT INCOME

Taiyuan SHANXI RIBAO in Chinese 5 Aug 83 p 1

[Article by the Village Economy Survey Team, Provincial Statistical Bureau concerning the sharp January-July increase in peasant income]

[Text] The provincial statistical bureau lately did a sampling survey of the income and expenditures of 1,100 peasant families from 22 counties of the entire province. The result shows a sharp increase in the income and expenditures of our province's peasants in the first half of this year.

Of the 1,100 commune-member households surveyed, the average cash income per person reached 87.9 yuan, an increase of 35.2 yuan, 66.8 percent over the same period of last year. Of this amount the income the peasants received from selling agricultural and sideline products increased by 38.3 percent over last year, while the income of business, catering service, construction and transportation increased 160 percent over the same period of last year. The average cash expenditure per person was 111.3 yuan, an increase of 52.3 yuan or 88.6 percent, over the same period of last year. Of the cash expenditure, the amount spent on buying daily consumer goods increased 65.1 percent over the same period of last year, while that spent on buying production materials increased 140 percent over the same period of last year. With the sharp increase in peasant income, the consumption level has also gotten higher and higher. Counted by average quantity owned per household, the number of bicycles the peasants bought in the first half of this year increased 160 percent and the number of watches increased 170 percent over the same period of last year. The television sets the peasants bought in the first half of this year equalled the total they had bought in past years.

12369
CSO: 4007/237

WATER PAYMENT READJUSTMENT OUTLINED

Taiyuan SHANXI RIBAO in Chinese 29 Aug 83 p 3

[Interview with Xu Sifu [6079 0934 1788], director of Shanxi's Department of Water Conservation, by a SHANXI RIBAO reporter; date and place not specified]

[Text] After the promulgation of "Shanxi Province's Regulations for Water Resource Management," some questions about the readjustment of water payment standards have come from everywhere. Quite a few among the masses have written letters and contributed articles to our paper asking about this matter. So our reporter interviewed Director Xu Sifu of the Provincial Department of Water Conservation, asking him to reply to pertinent questions.

Question: Water payment standards are being readjusted everywhere in Shanxi. What do you think about this measure?

Answer: Shanxi's water resources are extremely deficient, the second most deficient in China. Per capita water consumption is only 17.3 percent of the national average. Currently, outstanding problems are a severe water shortage, on the one hand, and correspondingly alarming waste of water, on the other. The water supply isn't planned, water use has no quotas. Controlling water use, and thereby saving water, is a most pragmatic and effective method of resolving the present contradiction between water supply and need in Shanxi. The appropriate rise in water payment standards means the use of economic leverage to attain the goal of water conservation by all the people.

In addition, readjusting the price of water is also required for maintaining current water supply projects and reproduction. In the 30-odd years since the founding of the People's Republic, the state has invested more than 3 billion yuan in water conservancy construction in Shanxi and has completed more than 150,000 water conservancy projects of every kind. Because water supply costs weren't counted in the past, revenue from water payments was low, or water payments weren't collected. As a result, even minimum costs of movement and administration couldn't be met, not to mention improvement and transformation of equipment. Premier Zhao Ziyang points out: "The construction of irrigation works on a foundation of state subsidies cannot be permanent." He adds: "Peasants must pay the state for the water they use, which cannot always be subsidized by the state." This readjustment of the price of water will solve this problem step by step.

Question: What notable results have been obtained since Shanxi readjusted the price of water?

Answer: Results obtained since readjustment have been obvious. First, water conservation has been promoted on every agricultural and industrial front, as the reckless waste of water by "drinking from the same big pot" has taken a turn for the better. Second, the further improvement of the responsibility system for water conservancy management has been promoted.

During past times of water shortage due to drought, frequent disputes took place out of competition for, grabbing of and theft of water for irrigating farmland, as downstream communes and brigades had to dispatch people to the canals to guard the water day and night. After the readjustment of the price of water, the more water one uses, the more money one pays. Those seriously wasting water pay double fines. Many communes and brigades have organized special teams to manage water and have adopted a contract responsibility system in irrigated land. Third, the situation in water conservancy departments' long-term losses has begun to change, reducing the state's burden.

Question: What do you think water prices will be like after readjustment?

Answer: This readjustment is geared to Shanxi's actual circumstances. When setting standard prices for water, we consider this principle: water conservation management units must be able to husband water, peasants administering irrigated land must stand to gain, and the peasants' burdens and capabilities cannot be exceeded. Industrial and mining enterprises' water costs have risen from 1.47 percent to 2.4 percent of total costs, not a big increase. If we consider the different concrete circumstances of each industrial and mining enterprise, however, the cost is set at 0.06 to 0.1 yuan per cubic meter. In agriculture, because of the rather low level of current production and the existence of a price scissors in industrial and agricultural products, Shanxi has proceeded from the peasants' actual burdens and capabilities and stipulated a price of 0.008 to 0.015 yuan per cubic meter. Quite clearly, this is far below the cost of supplying water, and the state still has to allocate some funds annually for the maintenance of water conservancy projects and the improvement of equipment. So we say that present water payment standards are still low.

Question: Some peasants are now making known the high cost of irrigating land and their heavier burdens. How do you view this problem?

Answer: According to our investigation, this problem has two chief causes. One is poor management of water conservancy measures. After land contracts were assigned to households, some communes and brigades had no one to manage water conservancy measures. Irrigated land was held temporarily, but there was no one to manage it after irrigation. Canals weren't rebuilt, land wasn't smoothed, flood irrigation occurred. The Nanzheng Production Brigade in Pingyao County's Huiliuying irrigation area used 208 cubic meters of water for each mu this spring. But its immediate neighbor, the Xinzhuang Production Brigade, because it mobilized the masses for canal dredging and land smoothing before spring irrigation, divided each mu of autumn land into 12 rectangles

and all wheat acreage into small rectangles, thus achieving the division of land into irrigated plots. At irrigation time it adopts the methods of "one pump drawing water for many days' irrigation," paying fees and making out invoices, and ration tickets for water. As a result, irrigation is in good order, and a small quantity of water is used, only 70 cubic meters per mu. The second chief cause is many irrational apportionments. For example, when safeguarding and committing labor to farmland construction and water conservancy projects, we should basically adhere to the principle of labor from those who have it and money from those not contributing labor. The peasants must be free to choose and settle their accounts separately. It is possible, though, that some communes and brigades only adopt the method of imposing monetary levies and hiring labor. Still others indiscriminately use contract irrigation personnel at irrigation time, even to the point of apportioning by the mu cadres' entertainment allowances for food and drink. How can water fees not increase? How can the peasants' burden not grow heavier?

Question: Are there still any problems from the previous state of water fee collection?

Answer: I said before that after readjustment of the price of water, the entire situation has been good. All individual industrial and agricultural departments are resolutely carrying out the stipulations of the provincial government, energetically taking measures to conserve water, and paying fees on their own initiative. Many rural communes and brigades still use the method of buying water tickets in advance and having water ration tickets. On the other hand, there are a very few industrial and mining enterprises and rural communes and brigades that don't clearly understand the significance of the price of water's readjustment and take a contradictory attitude. This phenomenon is intolerable. Premier Zhao Ziyang recently pointed out: "We must certainly collect water fees. Moreover, we cannot set water fee standards too low. Their collection is a great impetus that can promote water conservation by everyone." We must publicize the readjustment of water payments, on the one hand, while taking the necessary measures, on the other. Let us resolutely safeguard the authority of "Shanxi Province's Regulations for Water Resource Management."

12570
CSO: 4007/252

RELIABLE LAND READJUSTMENT URGED

Taiyuan SHANXI RIBAO in Chinese 1 Sep 83 p 1

[Article by staff commentator: "Readjust Land Reliably"]

[Text] An important problem in perfecting the responsibility system linking planned production with contracts is the step-by-step readjustment of land in a more rational manner. When this system began, some localities still assigned land contracts according to the number of people, even though we emphasized that contracts should be assigned according to ability or people-labor ratio. Hence some people's land cannot be cultivated while others' is insufficiently cultivated; the potential of land and labor cannot be fully tapped. Those with land that cannot be cultivated demand to pull out of their contracts, those with insufficiently cultivated land demand contracts. Thereupon we have proposed a demand for land readjustment. Along with the development of economic diversification has sprung up a large group of specialized and major households in aquatic breeding, processing and transportation. Some persons therein feel that in most cases, land under contract is a burden. They want to get out of some contracts and concentrate their efforts on their own specialities. Others, expert at farming and willing to till more land properly, put their main efforts into developing commodity grain. Let us explain the two sets of circumstances mentioned above. The peasant demand for land readjustment is decided by the level of the productive forces' development. By complying with this demand, we can combine land and labor more rationally, favor specialization and the division of labor, and favor commodity production.

Does land readjustment affect the stability of the planned production responsibility system? It does not. On the contrary, it is very hard for that system to be stable without a foundation of rational contracts. Readjustment makes land contracts more rational and provides a firmer foundation for the responsibility system's stability. Moreover, readjustment is neither a big change nor a repudiation nor a reversion. Rather it requires that the responsibility system be supplemented, revised and perfected. Thus we say that readjustment's precise purpose is to ensure the long-term stability of the responsibility system. We cannot believe that stability is absolutely unshakeable and that readjustment means serious confusion. To be sure, readjustment must take place as the masses desire and with insistence upon the voluntary principle. The time period and measures for readjustment may come under flexible control.

Land readjustment places land in the hands of expert farmers to a relatively concentrated extent, giving rise to households specializing in the production of commodity grain. In readjustment it is undoubtedly correct to give land priority contracts from which some households have pulled out to households specializing in grain. But the amount of land under contract to such specialized households must be assigned on the basis of estimates of their labor power, funds and skills. Then the land can be farmed properly. We must not unilaterally seek a scale of land management for the purpose of establishing a "model." Scale size may divert us from economic results.

At present, three methods of land readjustment have been adopted in China: the first is unified readjustment by production teams; the second is the transfer of contracts by commune members; the third is "free love and registered marriage" as in the Baisang Production Brigade. Practice everywhere proves that the third method's results are rather good but still imperfect. Proceeding realistically, people everywhere can create many and varied methods.

12570
CSO: 4007/252

IMPROVEMENT OF LAND MANAGEMENT URGED

Taiyuan SHANXI RIBAO in Chinese 29 Aug 83 p 1

[Article by staff commentator: "The System Must Improve, Soil Fertility Must Increase"]

[Text] Land is a special kind of means of production. As long as its crops are good, it not only will not suffer wear, tear and breakdown like a machine, but will also grow more fertile as it is cultivated more. In accordance with this special nature, we must raise the level of agricultural production from now on, tap the land's potential and fully mobilize the peasants' enthusiasm for investment and processing in land.

Since adoption of the responsibility system linking planned production with contracts, the peasants' economic interests have been clearly linked with land management. Processing and investment in land by peasants have their own internal motive force. Peasants can only prosper if land processing is good, output increases, and income rises. Quite a few peasants understand this principle and in recent years have zealously engaged in land investment and processing. We should also note, however, that peasants still have some misgivings about land investment and processing. Some fear that the responsibility system is unstable and that benefits from investment will not come soon enough; hence they worry about investing capital in vain. Others fear that land readjustment will transfer the benefits of their investment and processing to someone else. Therefore, some peasants grab this year's profits and disregard long-term profits and losses. We cannot merely blame peasants for not believing in our policy--that is shortsighted. From their misgivings we should see that parts of the planned production contract are not good enough. For example, the contract period is too short, there are no measures encouraging peasants to care for the land, etc. Therefore, we should begin by improving the system, gain the peasants' trust, and guide them in doing long-term construction. In Yuncheng County, the Guocun Brigade has set up a system of rewards for land investment; this is a good method.

There must be many and varied methods of encouraging peasants about land in investment and processing. Good experiences are found everywhere now. For example, short-term contracts have become long-term contracts, land investment has been compensated for, and a system of volunteer work on farmland capital construction has been established. Because these systems were established only

a short time ago, however, some systems' concrete methods still need improvement. It is necessary, for example, to continue to inquire into how to decide the amount of compensation for land investment and how to measure improvement in soil fertility. Everyone must liberate his or her thinking, use his or her brains, and adopt methods appropriate to local realities. Every level of leadership must help the peasants improve their land management system and must give timely approval to methods that the peasants like. They may choose a method and also may use several methods in overlapping fashion, as long as they can mobilize the peasants' enthusiasm for processing and investment. China's peasants have deep feelings for the land and are willing to process and invest in it. As long as the leadership's work keeps pace with them, the peasants' enthusiasm will continue to run high and last without waning.

12570
CSO: 4007/252

FIELD CONTRACT PERIOD EXTENSION HAILED

Beijing RENMIN RIBAO in Chinese 29 Jun 83 p 2

[Article: "Jinhua Prefecture Universally Extends Contract Period for Fields"]

> [Text] Editor's note: After the output quota contract responsibility system was put into practice in the rural areas, how to further reassure popular feeling, encourage the peasants to actively invest in contracted fields, and improve production conditions is a very important problem. Jinhua Prefecture's universal extension of the contract period for contracted fields has led to fairly good results, which can serve as a reference for all areas when they are stabilizing and perfecting the output quota contract responsibility system.

The rural areas in Jinhua Prefecture, Zhejiang Province, are now universally engaged in the work of extending the contract period in order to stabilize the household output quota contract system.

In Jinhua Prefecture, 99.6 percent of the production teams already practice ths household output quota contract system. Since last year, the situation with regard to signing and fulfilling contracts in all areas has been basically good. But some time limits of contracts are too short, something which is unfavorable for reassuring popular feeling, unfavorable for the peasants' processing and investing in the land, and easily creates a predatory economy. Most of the contracting households have urgently requested an extension of the contract time limit. Some contracting households in Pujiang County say: if the contract is for 1 year chemical fertilizer will be applied, if for 3 years animal pen manure will be applied, if for 5 years pond sludge will be dredged up, and if for 10 years water conservancy projects will be built; contracting for long periods will change the "stone pagoda" (meaning poor land) into good land.

Based on these circumstances, since last winter the prefecture has made the extension of the contract time limit an important means of stabilizing the household output quota contract system and of sustaining production

increases. Now over half of the production teams in the prefecture have completed the work of extending the contract period. The contract period is determined according to different production projects: in fields it is normally about 10 years; in mountain forests it is normally 15, 20, or 25 years and even somewhat longer; and the contract periods for animal husbandry, sideline occupations, and fishery and for commune- and production team-run enterprises are approximately extended according to actual needs.

In order to further do good work in this respect, in the first third of April, Jinhua Prefecture popularized four ways that Yima County does things:

1. There is no long-term change for over 90 percent of the fields, but 10 percent of the fields become reserve fields, and according to the population increase or decrease, the reserve fields make up the difference in grain rations. This experience was produced by the Xiawang Production Brigade of Pingchou Commune in Yima County. In the second half of last year, this brigade put big contracts into practice. Contracts were made with households for fields according to a half-and-half proportion of the grain ration and population, with the production teams retaining 10 percent of the total 90 mu of land as reserve fields. Accountants balance the books year by year. If the population increases according to family planning and the taking of wives, the grain ration fields are increased; if family planning is exceeded, the grain ration are not increased. If people die, the contracted fields are taken back. In this way, roughly less than 10 percent of the land if readjusted every year.

2. In contracting out fields according to population, one contract is for 10 years, and deficiencies are not made up if the population increases or decreases. The brigade-run enterprises solve the problem of providing outlets for newly added labor power. In 1982 the gross output value of enterprises in the Xichen Brigade of Xucun Commune in Yima County was 505,000 yuan and its strength was solid. At the beginning of this year big contracts were put into practice with the contract period being 10 years; if the population increases or decreases within these 10 years, the land is not readjusted. The brigade's enterprises find a place for the newly added labor power.

3. When the population increases or decreases, money and grain make up the deficiencies. The contract period for fields in the Fotang Commune of Yima County is 10 years. Every brigade draws up a 10-year budget for income and expenditure. Youths who reach marriageable age within these 10 years can precontract a grain ration field for one child, and before marriage they receive grain ration money according to the state's grain price.

4. Output is moved but not fields. Yima County is located on a river valley plain. Its production conditions are fairly good, and its leadership forces are fairly strong. Its commune members' income depends mainly on agricultural production. After extending the contract period,

the above-mentioned brigade decided: every year we will make one readjustment of the grain quota to be turned over to higher authorities, in line with the population increase or decrease and the changes in grain rations.

By extending the farmland contract time limit through a large amount of thoroughgoing and painstaking work, Jinhua Prefecture has reassured popular feeling. Now, many contracting households keep their eyes on the long term; on the contracted fields they make vigorous investments, diligently apply fertilizer, improve the soil, and build water conservancy projects in an effort to build high and steady-yield farmland.

9727
CSO: 4007/197

PRODUCTION PROBLEMS IN MAJOR CROPPING SYSTEMS ANALYZED

Zhejiang ZHEJIANG NONGYE KEXUE in Chinese No 3, Jun 1983, pp 142-44, 141

[Article by Cheng Guangyi [4453 0342 0122] of the Zhejiang Provincial Department of Agriculture: "An Analysis of the Problems of the Production Role Played by the Two Main Cropping Systems in Zhejiang's Cotton-Growing Areas"]

[Text] By acreage planted in cotton, Zhejiang's cotton-growing areas may be divided into two types, those growing only cotton and those growing cotton and grain. The former mostly use continuous cropping. Year after year on the same piece of land, summer-harvested crops (i.e., wheat, barley, rape, etc. that bloom in the spring) and cotton are intercropped and interplanted. The latter have a rotation of rice and cotton crops on most of their cotton land.

I. Grain-Manure Intercropping and the Cotton-Grain Interplanting Cropping System

Many of Zhejiang's cotton-growing areas grow two crops a year. In general, cotton is interplanted before the harvest of summer-harvested crops, while the latter are harvested before the former's harvest is complete. The harvesting and planting seasons of summer-harvested crops and cotton overlap by more than a month. One particular point is to make the row spacing of summer-harvested crops appropriately wide so that intercropping of green manure (bur clover) can be done between every two rows. Until cotton is sown, the green manure is harvested, turned over and buried in the soil. Then the cotton is intersown in the slashes of green manure. This kind of cropping system has the following advantages: 1) it can ensure the timely sowing of cotton and stresses early seedlings; 2) with green manure from bur clover, it can provide cotton with high-grade organic fertilizer; 3) it can enhance light conditions for summer-harvested crops, thereby raising their yield. In the past, Shangyu County in Zhejiang intercropped 90 percent of its cotton land with green manure. Beginning in 1971, however, the influence of the "left" caused a yearly decline in acreage intercropped with green manure, so that by 1976 cotton acreage thus intercropped was 54.4 percent of cotton land. In this period, the per unit area yield of cotton also declined annually. In 1964-70, the average yield per mu was 123.7 jin of ginned cotton, but only 93 jin in 1971-76. After an analysis of Huazhen Commune, representative of the county as a whole, it is believed that reduced use of green manure was the main reason for the decline in cotton output. Thereupon the entire county vigorously promoted a return to

the system of grain-manure intercropping. Beginning in 1977, cotton acreage intercropped with green manure has increased year after year, so that by 1981 such acreage rose to 94 percent of all cotton land. According to a typical investigation of 13 places in 1981, the average yield of mu of fresh green manure hay reached 1,087 jin. In this period, cotton output also rose. The average yield per mu of ginned cotton went up again to 114 jin in 1977-80. Although 1981 brought such natural disasters as typhoons and autumn rains, each of the county's 92,000 mu planted in cotton still attained an average yield of 104.4 jin. Despite a possible increase in output of summer-harvested crops due to less intercropping with green manure and a switch to planting entire plots in summer-harvested crops, cotton production will go down for the same reasons. Therefore, the pros and cons of these two changes should be weighed carefully. In 3 consecutive years of tests by the Provincial Academy of Agricultural Science at Jiatang Commune in Yuyao County and the No 2 State Farm in Ciqi County, plots planted in barley (with no green manure intercropped) later received transplanted pot cultivated cotton seedlings. These plots were compared with plots of barley intercropped with green manure and interplanted with cotton. The former plots had a higher barley yield, but the latter had a higher yield of ginned cotton. In Jiatang Commune, each mu of barley plot at the most had a yield of 105.7 jin of barley and at the least 15.5 jin of ginned cotton. The No 2 State Farm in Ciqi had a high yield of 96.5 jin per mu of barley plot and a low yield of 9.5 jin of ginned cotton. If measured against a cotton-grain price ratio of 1:10, yields of 9 to 15 jin of ginned cotton do not differ from yields of 96.5 to 105 jin of barley. Moreover, the planting of green manure can play the beneficial role of nourishing the soil and continuing increased production. This has yet to be reckoned with. The above explains that from an overall point of view, the system of intercropping grain and manure and interplanting cotton and grain benefits production.

According to practice, the following matters need attention in the intercropping of grain and manure and the interplanting of cotton and grain:

A. Emphasis of the layout of winter crops and proper retention of land for winter crops. The position of these crops is related to the ability to sow cotton on schedule, the timely emergence of seedlings and the production of good seedlings. Thus when planting winter crops, peasants must consider where to plant cotton and must leave enough space for rows of cotton plants. Zhejiang's relatively abundant rainfall and good drainage of cotton land greatly influence the size of the cotton crop. Therefore, broad-row planting is done only in some cotton land away from the sea. Rows are about 30 chi wide, ditches about 3 chi. Because these wide ditches drain water, cloth is no longer used for bedding. Hence the land is generally known as flat-land cultivation cotton land. In accordance with drainage, in most cases the usual farming practice on the rest of the cotton land is to use ditches and bedding in planting. Plots are wide or narrow: 1) wide ones are generally about 7.2 chi wide (including the 8-cun-wide ditch, as is the case below), in which are planted three rows of summer-harvested crops and two of green manure; 2) narrow ones are about 3.6 chi wide, on both sides of the plot near the ditch a row of summer-harvested crops is planted, and in the middle of the plot is planted a row of green manure, in whose slashes are later planted two rows of cotton. On broad flatland cultivation cotton land, in generala row of summer-harvested crops is planted at

intervals of about 3.4 chi with a row of green manure interplanted. Later two rows of cotton are interplanted in the green manure slashes.

Cotton land's winter crops are broad beans, barley, wheat and rape. Their row pattern is generally either broad beans planted between grain or barley planted between wheat, i.e., a row of broad beans, then one of grain or a row of barley, then one of wheat. Since the two have different growing seasons, the first to ripen is the first to be harvested. This favors the reduction of foliage cover, promotes admission of light and wind, and benefits the growth of strong cotton sprouts.

B. Intercropping of good green manure. Zhejiang's main cotton-growing areas have always had the practice of intercropping legumes and bur clover for green manure before planting cotton. They are important sources of organic fertilizer for cotton. In the interplanting of green manure, 1,000 to 1,500 jin of fresh hay is the general yield per mu, while the yield can reach 2,000 to 3,000 jin when planting is done well. It is usually thought that the application of 1,000 jin of fresh green manure can increase the yield of ginned cotton by about 15 jin per mu. According to indications from contrast tests run by the Provincial Academy of Agricultural Sciences at the Zhenhai Cotton Farm, if 100 is the cotton yield of land with no green manure applied, the yield of 110.16, a 10-percent increase, after 1,000 jin of green manure have been applied. The yield is 128.77, a 29-percent increase, after 2,000 jin have been applied. Yuyao County's Jiatang Commune has more than 7,800 mu of cotton land and has exceeded the per mu cotton target set by "The National Program for Agricultural Development" in each of the past 8 years, regardless of waterlogging, dryness and wind. Despite severe typhoons and autumn rains in 1981, per mu yield still reached 127 jin. Most prominent in the analysis of this experience is that during winter, the commune insists on the traditional intercropping of grain and manure and each year plants enough good green manure. During the 7 years from 1974 through 1980, the average annual cotton acreage intercropped with green manure exceeded 91 percent of all cotton land, and each mu yielded an average of 1,710 jin of fresh hay. Because of the fairly ample use of this high-grade organic fertilizer, it played an excellent role in improving the cotton fields' physical and chemical soil quality and in supplying cotton with nutrients. Thus it has promoted cotton's steady, high yield.

When green manure is applied, it is buried 5 to 6 cun deep in order to ensure its dampness, promote its decomposition, release its nutrients and let the cotton plants' roots gradually penetrate deep into the soil and absorb the nutrients as the necessary amount of fertilizer gradually increases. At the same time the soil is being turned over and loosened, the deficiencies of previous plowing may be made up. On doublecropped and interplanted cotton land, crops are planted year round, so that winter plowing cannot be done on all of it. Therefore, soil is turned over in two stages instead of winter plowing of all land. Green manure is planted in cuts between rows of cotton plants. When it is time to plant barley and wheat, the cotton plants have already been tied to sticks. Winter plowing is done in advance on both sides of the plot, and then the grain is planted. Before the next year, the green manure is turned over. After the second stage, all the soil can be turned over and tilled.

C. Pursuit of early-maturing cotton seedlings and early growth brought on by early control. Practice proves that if Zhejiang is to have high, stable cotton yield, the word "early" is at the core of cultivation and control. Suitably early sowing brings sprouts up to good standards, accelerates early growth and blossoming, and lays a good foundation for high yield from early-maturing plants. The middle 10 days of April are Zhejiang's best period for sowing cotton. Because the systems of intercropping and interplanting have wide row spacing, cotton can be sown on time between the rows of summer-harvested crops. "Control through the six earlies" is stressed during the small seedling stage: early support for summer-harvested crops; early cleaning of ditches for drainage; early application of manure to raise seedlings; early intertilling and weeding; early disease prevention and insect control; and early examination and nourishment of seedlings. In this way, complete and strong seedlings can be guaranteed. After the harvest of summer-harvested crops, the process goes a step further, as vigorous control during the seedling stage is promoted along with early growth of cotton plants. Great effort goes into regulating the blossoming period of excellent light and warmth from the last 10 days of July through the middle 10 days of August, in order to have many big bolls, early ripening and high yield.

In view of the current problems in the intercropping and interplanting systems in cotton-growing areas, we should consider adoption of the following measures to further consolidate and enhance these sytems:

1. Establishment of bumper harvests of grain and cotton and the idea that grain ensures cotton and cotton promotes grain. Grain, cotton and oil-bearing plants must be planted according to the state's plan. None is to crowd out another; all are to be contracted out. Planting should be done after protective measures are taken; a crop should be watched year round; each crop should have a role to play, and development should be coordinated.

2. Insistence upon the intercropping of green manure. Cotton yield is now unable to rise at a great rate; this is closely related to the lack of organic fertilizer. Therefore, the proper winter planting of green manure must be stressed as a strategic measure. Cotton fields intercropped with green manure must make up at least 60 percent of all cotton acreage.

3. Resumption of correct row spacing in the planting of summer-harvested crops. In recent years the row spacing of summer-harvested crops has narrowed excessively, to the disadvantage of the growth of green manure and cotton. In flatland cultivation areas, a row of summer-harvested crops is planted at intervals of 3.4 to 3.6 chi. Between every two rows is intercropped a row of green manure. Afterthat is harvested, two rows of cotton are interplanted. In bedding areas, wide plots are 7.2 to 7.8 chi wide with three rows of summer-harvested crops, two of green manure and four of cotton; narrow plots are about 4 chi wide, with green manure in the middle, summer-harvested crops on the ditches' edges and two rows of cotton interplanted. Or, one side is planted in green manure, the other in summer-harvested crops, with two rows of cotton interplanted. This favors two bumper crops and a higher yield of green manure.

4. Appropriate planting of some plots entirely in barley and wheat. This can increase the sources of grain. The relatively correct amount of acreage is in

general about 15 percent. To increase income at the same time, some autumn vegetables can be interplanted in accordance with local conditions. This should not be done in excess, lest it affect the planting of green manure.

5. Expansion of the transplanting of pot cultivated seedlings. Some communes and brigades transplant these seedlings between rows of summer-harvested crops with excellent results. Such transplanting reduces the contradiction of first and later crop rotation for the cultivation of early-maturing cotton seedlings and benefits increased production of summer-harvested crops, green manure and cotton. Because the first 10 days in April are exactly the time when green manure flourishes, its harvest can be postponed and its yield of fresh hay increased if cotton seedlings are transplanted. The planting of cotton seedlings can be moved up to the last 10 days of March or the first 10 days of April to improve them. After pot cultivation and the restraining of seedling growth, the seedlings can then be transplanted for the first time between the rows of summer-harvested crops. In this way the coexistence period of cotton and summer-harvested crops can contract, as the latter will cover the former less. Delayed transplanting also reduced the bruising suffered by summer-harvested crops, benefits their sturdy growth, and favors their production as well as that of cotton.

II. The Rotation Cropping of Rice and Cotton

Nearly one-quarter of Zhejiang's cotton land is planted in both cotton and rice and is usually called "paddy-cotton land." Paddy-cotton land's cotton fields for the most part have rotating crops of rice and cotton. The rotational patterns are these: 1 year of cotton, 1 of rice and a rotation every 2 years; 2 years of rice, 1 year of cotton and a rotation every 3 years; and 2 to 3 years of rice, 2 to 3 years of cotton and a multiyear rotation.

Rice-cotton crop rotation can improve the soil's physical and chemical quality; fully utilize the various soil layers' nutrients; reduce and control the propagation of weeds, diseases and insect pests; and stagger the farming season so as to benefit the disposition of labor power. Thus rice-cotton areas arrange a certain acreage to be rotation-cropped in rice and cotton. Generally speaking, this has advantages. Moreover, since both crops are there, cotton production will be little affected when grain is urgently needed. Thus cotton production is relatively stable with rate of increase and decrease smaller than those in areas growing only cotton. Take, for example, the communes of Qiaotou, Minzhu and Zhangshu that once belonged to Yuyao County's area of continuous cotton cropping. In 1963-69, they averaged 15,027 mu of continuously cropped cotton land per year with an average yield per mu of 102.76 jin of ginned cotton. During the years of "left" disturbance from 1970 to 1976, the first figure dropped to 13,591 mu while the second declined 34.8 percent to 67.02 jin. On the other hand, there are the communes of Shiyan, Henghe, Longnan and Pengqiao in a cotton area with crop rotation. In 1963-69, they averaged 12,527 mu of rotation-cropped cotton land per year (12,806 mu in 1970-76) and 100.67 jin of ginned cotton per mu (83.62 jin in 1970-76 for a drop of only 16.9 percent). This shows the advantages of rice-cotton crop rotation for stable cotton production. Again from the standpoint of newly developed rice-cotton crop rotation areas, the idea of ensuring cotton and promoting grain is explicit, so that

with respect to acreage, fertilizer distribution and disposition of labor, peasants can make overall plans and take all factors into consideration, and one crop does not crowd the other out. Thus the results of crop rotation are all the more obvious. For example, Xitang Commune in Haiyan County has 11,000 mu of cotton land, 2,500 to 3,000 of which are annually rotated between rice and cotton. During the 9 years from 1973 through 1981, the annual average yield was 128 jin per mu, 16 jin higher than the county's average yield. Rice production also was high and steady, averaging more than 1,600 jin per mu from nearly 1 million mu per year. This commune's seed farm rotated crops three times through 1981 after being set up in 1976. Seedling disease was trifling each year, cotton production was steady and high, and the average annual yield per mu for the 6 years was 148 jin of ginned cotton, 30 jin above the commune's average.

Rice-cotton crop rotation favors the promotion of increased grain production. In general, the first year's crop of post-cotton rice can increase yield by more than 200 jin per mu. The masses report that 1 year's crop of cotton means 2 good years of rice. Post-cotton summer-harvested crops have a high yield due to loose, dry soil, so rice-cotton crop rotation benefits increased grain output. As for post-rice cotton, the soil is hard and deficient in permeability because of the long submersion of the fields during rice growing. This does not favor the loose, dry soil suitable for cotton. Therefore, the first post-rice crop of cotton, if measures are inadequate, will often have a slow seedling stage and excessive bud growth, as well as a longer vegetative stage and late maturity in a later period. When rice is growing, however, a fairly large accumulation of organic material for the soil can take place frequently. After the switch to cotton (a dry crop), decomposition of the soil's organic material can be promoted, in addition to the soil's gradual loosening. Organic matter accumulated during rice-growing time can provide cotton with even more nutrients. So in the second and third years of post-rice cotton crops, the plants' growth tends toward the normal. In view of the above, and in consideration of enabling cotton and grain to have stable increases in output, the best method is multiyear crop rotation: 2 to 3 years of rice, then cotton for the same period. This enables the potential for increasing grain and cotton output to be developed.

To be able to get a high yield from the first post-rice cotton crop in a rotational system, peasants must consider the soil's special characteristics after a rice crop and then create conditions suitable for producing cotton. The summary of experiences everywhere shows that the chief measures to be taken are as follows:

1. The consolidation of adjoining strips of land and their division into big tracts for crop rotation. After this necessary division, the dark floodwater will be hard to drain unless "wet crops are planted to enclose dry crops" and "dry crops are planted to surround wet crops," thereby preventing water from covering cotton land.

2. The establishment of an irrigation and drainage system. On all big tracts of cotton land, big ditches must be dug and deepened bit by bit, and high plots must be built in order to lower the water table and the humidity of the soil. The ensuing dryness promotes the soil's looseness, which in turn promotes the growth of roots.

3. Improvement of soil quality by turning soil over in winter, pounding it in spring and intertilling loose soil. After paddy land is drained, the soil is hard and thus unfavorable to cotton plants' taking root. Peasants sowing post-rice crops of cotton must attach special importance to digging deep when turning soil over and to deep hoeing in order to break up lumps of soil, loosen clay and aerate the soil. And in winter, they must apply more river mud and canal mud to make the soil layers deeper and richer. While cotton is growing. the soil must be cleared and diligently loosened to improve its physical quality.

4. The growing and timely transplanting of early-maturing seedlings. Post-rice cotton's seedling stage generally comes to a standstill as the seedlings do not sprout even after a long time. To overcome this defect, advanced communes and brigades nourish the young potted seedlings and then transplant them. This measure can essentially surmount the problem of seedlings stunted in the hard soil of paddy land.

5. Sufficient application of base fertilizer and heavy application of cotton boll fertilizer. When growing post-rice cotton, peasants must apply base fertilizer to all layers of the soil, and before cotton's three-leaf stage, they must lightly apply human waste and other quick-acting nitrogenous fertilizer to help seedlings grow. In order to prevent excessive growth during the budding stage, they must control the application of nitrogen-based chemical fertilizer. The application of cake fertilizer and other fertilizer is properly delayed until after flowering. Cotton boll fertilizer must be applied heavily. Then, after the cotton plants' lower parts have large bolls in the final 10 days of July, heavy application of nitrogen-based chemical fertilizer to force the bolls.

12570
CSO: 4007/248

END